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EDWARDS'S
BOTANICAL REGISTER:

OR,

ORNAMENTAL FLOWER-GARDEN
AND SHRUBBERY:

CONSISTING OF

COLOURED FIGURES OF PLANTS AND SHRUBS,
CULTIVATED IN BRITISH GARDENS;

ACCOMPANIED BY THEIR

History, Best Method of Treatment in Cultivation, Propagation, &c.

CONTINUED

BY JOHN LINDLEY, Ph. D. F.R.S. L.S. AND G.S.
PROFESSOR OF BOTANY IN THE UNIVERSITY OF LONDON,
&c. &c. &c.

New Series.

VOL. VI.

OR VOL. XIX. OF THE ENTIRE WORK.

——viret semper——nec fronde caducâ
Carpitur.

MISSOURI
BOTANICAL
GARDEN.

pls. 1565–1652

LONDON:
JAMES RIDGWAY, 169, PICCADILLY.

M.DCCC.XXXIII.

SHOUT
SHARE
IT

LONDON:
J. MOYES, CASTLE STREET, LEICESTER SQUARE.

1565.

Miss Drake. del.

Pub by J. Ridgway 169 Piccadilly March 1. 1833.

S. Watts. sc.

1565

The Crimson Creeping CEREUS.

ICOSANDRIA *MONANDRIA.*

Nat. ord. Cacteæ *Vent.* (*Introduction to the natural system of Botany, p.* 54.)
CACTUS.—Suprà, vol. 16. *fol.* 1331.

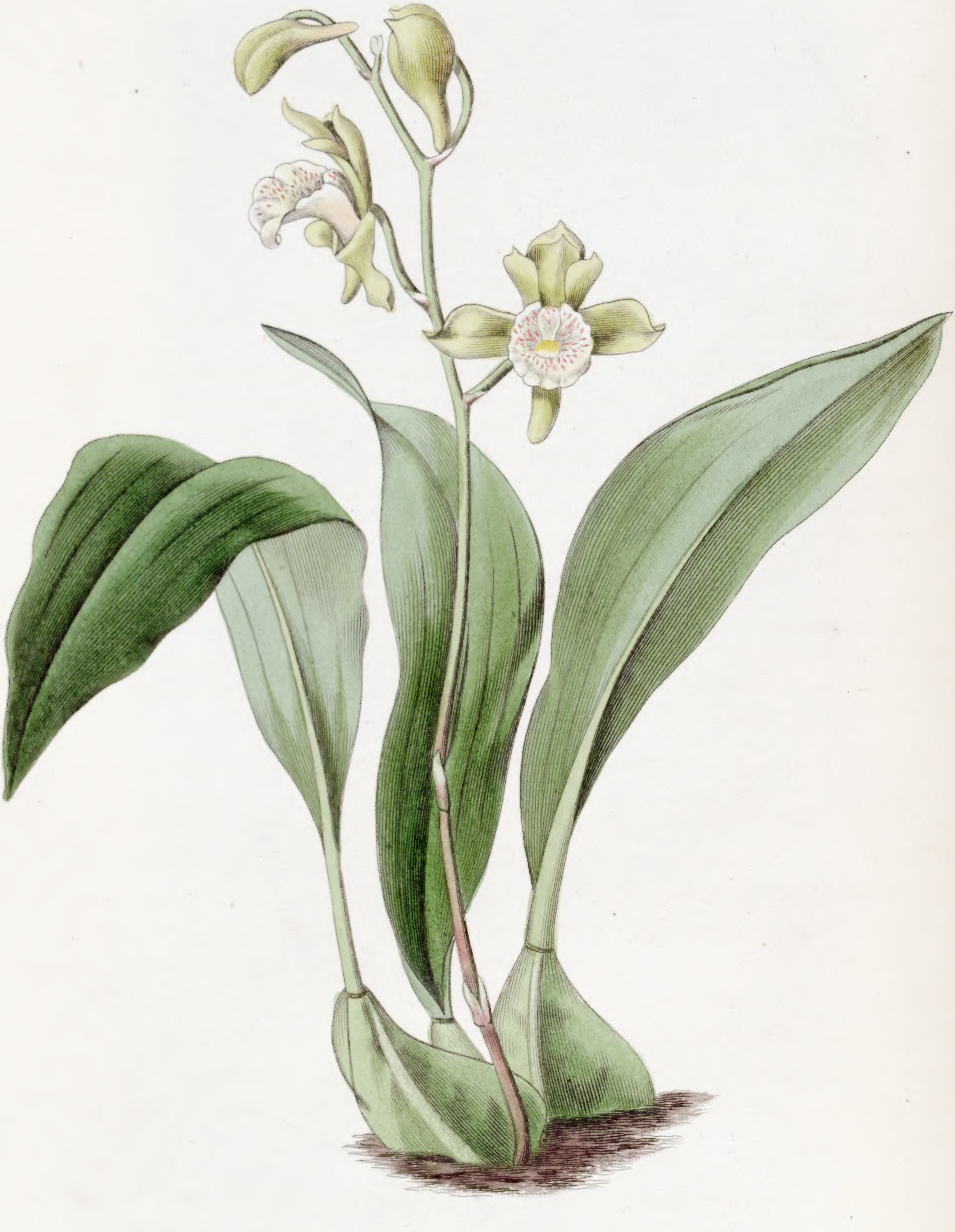
Garden Variety.

Although the object of the Botanical Register is by no means to give a place to transient Horticultural varieties, yet we have occasionally deviated so far from our original plan as to introduce very remarkable races when there has been any thing either in their history, or their general appearance which seemed to justify such a proceeding.

In the present instance we have a combination of much that is curious in history and beautiful in structure. The subject of the present notice was raised a few years ago by Mr. Mallison, Gardener to Sir Samuel Scott, from seed of Cactus speciosissimus fertilised by Cactus flagelliformis; the former the well-known erect species with brilliant scarlet blossoms, the latter the equally common trailing kind with pale rosy flowers. The result has been, as perhaps might have been expected, a hybrid, as nearly as possible intermediate between the two parents, having all the brilliancy of colour of the female line combined with the prolific constitution and trailing habit of the male. It was exhibited for the first time at a meeting of the Horticultural Society in 1832; the specimen was about 2 feet long, and excited much admiration. It was loaded with flowers, of the most healthy appearance; and what was especially remarkable, the colour of its stem was not the dull green of Cereus flabelliformis, but the rich bright hue of Cactus speciosissimus. The only plant we are acquainted with is in the possession of Sir Samuel Scott: it must be classed among the very best hybrids which Horticulturists have succeeded in obtaining.

It appears to be a hardy greenhouse plant, and will doubtless increase freely by cuttings. J. L.

1566.



M. Hart. del. Pub by J. Ridgway 169 Piccadilly March. 1. 1833. J. Watts. sc.

1566

MAXILLÁRIA* racemósa.

Raceme-flowered Maxillaria.

◆

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. § Vandeæ. (*Introduction to the natural system of Botany, p.* 262.)
MAXILLARIA.—Suprà, vol. 11. *fol.* 897.

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§ 2. Scapigeræ. *Pedunculi radicales.* Labellum anticum (COLAX). Scapi 2-multiflori.

M. *racemosa;* pseudobulbis ovatis compressis tetragonis monophyllis, foliis oblongo-lanceolatis tricostatis scapis gracilibus strictis multifloris brevioribus, sepalis oblongis acutis: lateralibus basi valdè elongatis in calcar spurium connatis, petalis linearibus spatulatis triplò minoribus, labello oblongo cucullato indiviso undulato emarginato in axi calloso, columnâ pubescente.—*Lindl. gen. et sp. orch. p.* 149. *ined.*

M. racemosa. *Hooker in bot. mag. t.* 2789. *Lodd. bot. cab. t.* 1318.

Pseudobulbi 2 *poll. longi.* Folia 4 *poll. longa, basi in petiolum angustata.* Scapus *pedalis.* Flores *sordidè flavi, membranacei.* Sepala *patentia: superius cum petalis parallelum Cymbidiorum more.* Labellum *cum sinu sepalorum lateralium articulatum, album v. sordidè flavum purpureis maculis pallidis notatum.* Anth. 1-*locularis.* Pollinia *posticè sulcata, caudiculâ brevi, glandulâ parvâ.*

This rare little Maxillaria was originally sent from woods near Rio Janeiro by Mr. William Harrison, and afterwards flowered in several collections. It has now become very scarce, being apparently too delicate to bear the imperfect cultivation that such plants receive even at the most skilful hands. We have seen it thrive for a short time planted in moss, and suspended in a pot from the rafter of a stove; in such a situation, in the Garden of the Horticultural Society, the plant flowered from which our drawing was taken in October 1829.

Its flowers are pale green, or greenish yellow, and have not much beauty; their lip is prettily marked with light crimson dots in the inside. J. L.

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* See fol. 1428.

1567.

Miss Drake del. Pub by J. Ridgway 169 Piccadilly March 1. 1833. S. Watts sc.

CALOCHÓRTUS* luteus.

Yellow Calochórtus.

HEXANDRIA *TRIGYNIA.*

Nat. ord. LILIACEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 279.)

CALOCHORTUS.—Suprà, vol. 14. *fol.* 1152.

C. *luteus ;* caule subtrifloro, foliis convolutis acuminatis pedunculis gracilibus brevioribus, sepalis apice recurvis, petalis cuneatis apice rotundatis medio transversè barbatis.

C. luteus. *Douglas.*

Caulis *pedalis v. citrà, teres, foliosus.* Folia *convoluta acuminata ; superioribus pedunculis brevioribus.* Flores 2, *v.* 3, *terminales.* Sepala *viridia, ovato-lanceolata, acuminata, petalis subæqualia.* Petala *apice lutea, medio viridia, sanguineo punctata, fasciâ pilorum luteorum ; basi viridia, glabra.* Ovarium *lineare, triquetrum, petalis ferè 3-plò brevius.* Antheræ *flavæ.*

Several species of this charming genus have now been discovered, besides the fine purple sort figured at fol. 1152 of this work, and the two others described by Mr. Douglas in the seventh volume of the Transactions of the Horticultural Society. Of these, the subject of the present notice is among the most interesting.

It was discovered by Mr. Douglas in California; and a few roots of it were received from him by the Horticultural Society in 1831. Cultivated in their Garden at Chiswick, it proves hardy, flowering in the months of September and October. Its blossoms are not fugitive, but, on the contrary, remain without fading for a week or ten days. It is the more interesting, as we have nothing at the same season which resembles it at all in character.

It appears to succeed perfectly in a north border in sandy peat. From the lateness of its flowering, it is not likely to produce seeds; let us hope it will form offsets in sufficient abundance to enable the Horticultural Society to distribute it as extensively as it is desirable that so beautiful a species should be.

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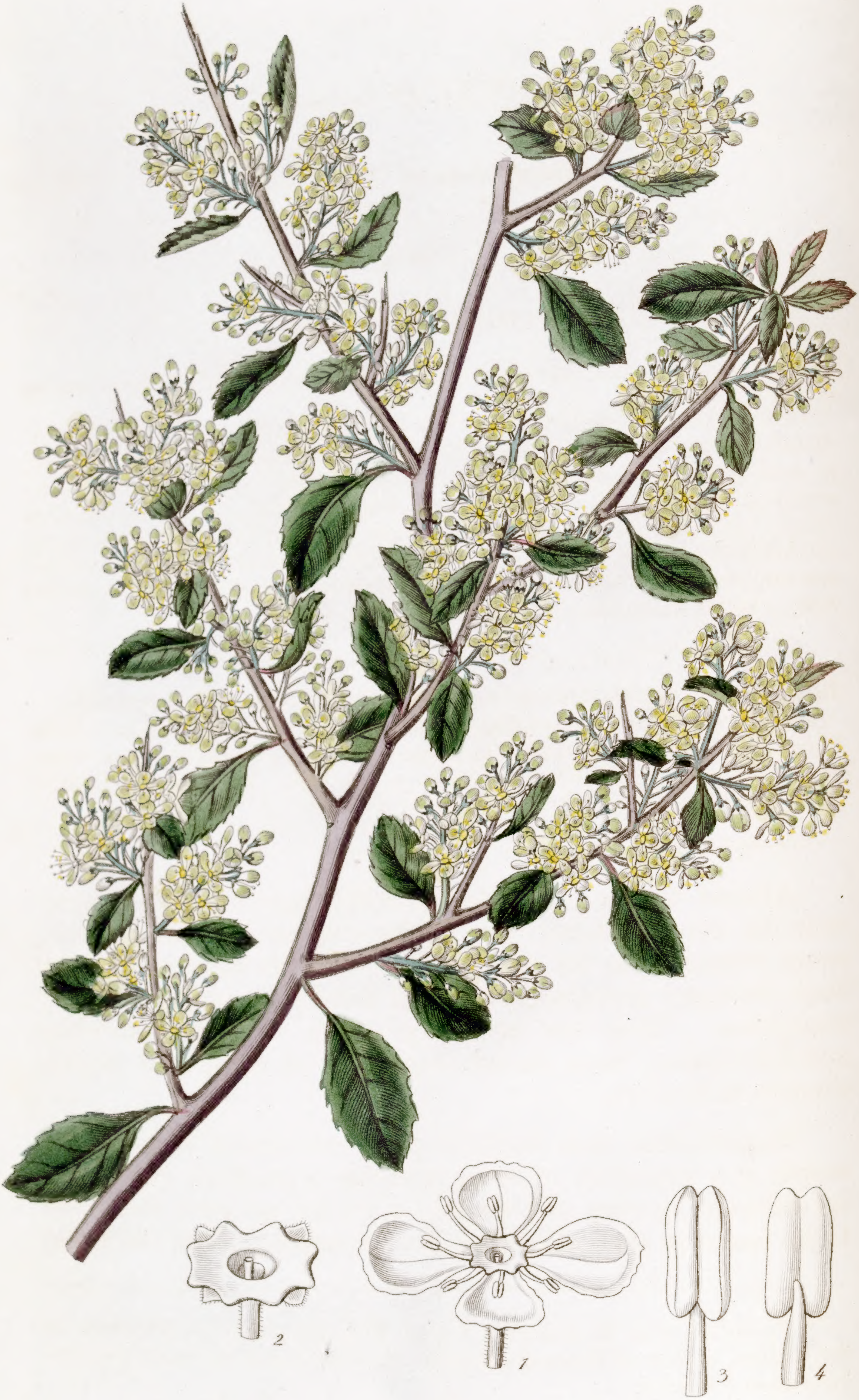
* See fol. 1152.

We refer Calochortus to Liliaceæ on account of its apparent affinity to Fritillaria; it nevertheless differs in a very remarkable manner in having its sepals distinctly leafy, in which particular it approaches Commelineæ. Probably it is a transition genus connecting Liliaceæ with the tripetaloideous orders of Monocotyledons.

J. L.



Miss Drake. del. Pub. by J. Ridgway 169 Piccadilly March. 1. 1833. S. Watts. sc.

DUVÁUA* ovata.

Ovate-leaved Duvaua.

POLYGAMIA *MONŒCIA.*

Nat. ord. ANACARDIACEÆ *R. Br.* (*Introduction to the natural system of Botany, p.* 127.)

DUVAUA.—*Flores* monoici aut dioici. *Calyx* 4-fidus, persistens. *Petala* 4, concava. *Stamina* 8, sub disco inserta, 4 petalis alterna, longiora, in flore ♀ effœta. *Discus* urceolatus, 8-dentatus. *Ovarium* sessile, 1-ovulatum, conicum, in ♂ sterile. *Styli* 3-4, brevissimi. *Stigmata* capitata. *Drupa* globosa, nucleo coriaceo. *Semen* 1, pendulum, exalbuminosum, cotyledonibus planis, radiculâ superâ longâ.——Arbor *chilensis, subspinescens, glabra.* Folia *simplicia, subintegerrima.* Racemi *axillares, multiflori.* Variat fl. 5-fidis. *De Cand. prodr.* 2. 74.

D. *ovata;* foliis ovatis dentatis acutis obtusisve, floribus sæpiùs octandris.

Frutex *sempervirens, ramosus, spinescens, verosimiliter orgyalis.* Folia *lucida, terebinthinum fortè olentia, formâ variabilia, plerumque tamen ovata, acuta, dentata; nunc obtusa, oblonga, v. obovata.* Racemi *stricti, foliis paulò longiores.* Flores *herbacei, sæpiùs octandri.*

Almost all the plants from Chile which are as yet common in our Gardens, are herbaceous or annual species, more remarkable for the beauty of their flowers than of their foliage; Aristotelia Macqui forming nearly a solitary exception. This has probably arisen from the shrubby species having been found impatient of cold, and unproductive of flowers.

Nevertheless that country produces many things well worth the attention of those who have gardens, especially its different species of Duvaua, of which at least three are to be found in the collections near London; all of them are very handsome evergreen bushes, with a bright shining foliage, which emits a strong but grateful odour when bruised; they will not bear the climate of London without protection from frost; but if trained to a wall, and sheltered by a roof of thatch in winter, they succeed perfectly: in short, they are about as hardy as myrtles.

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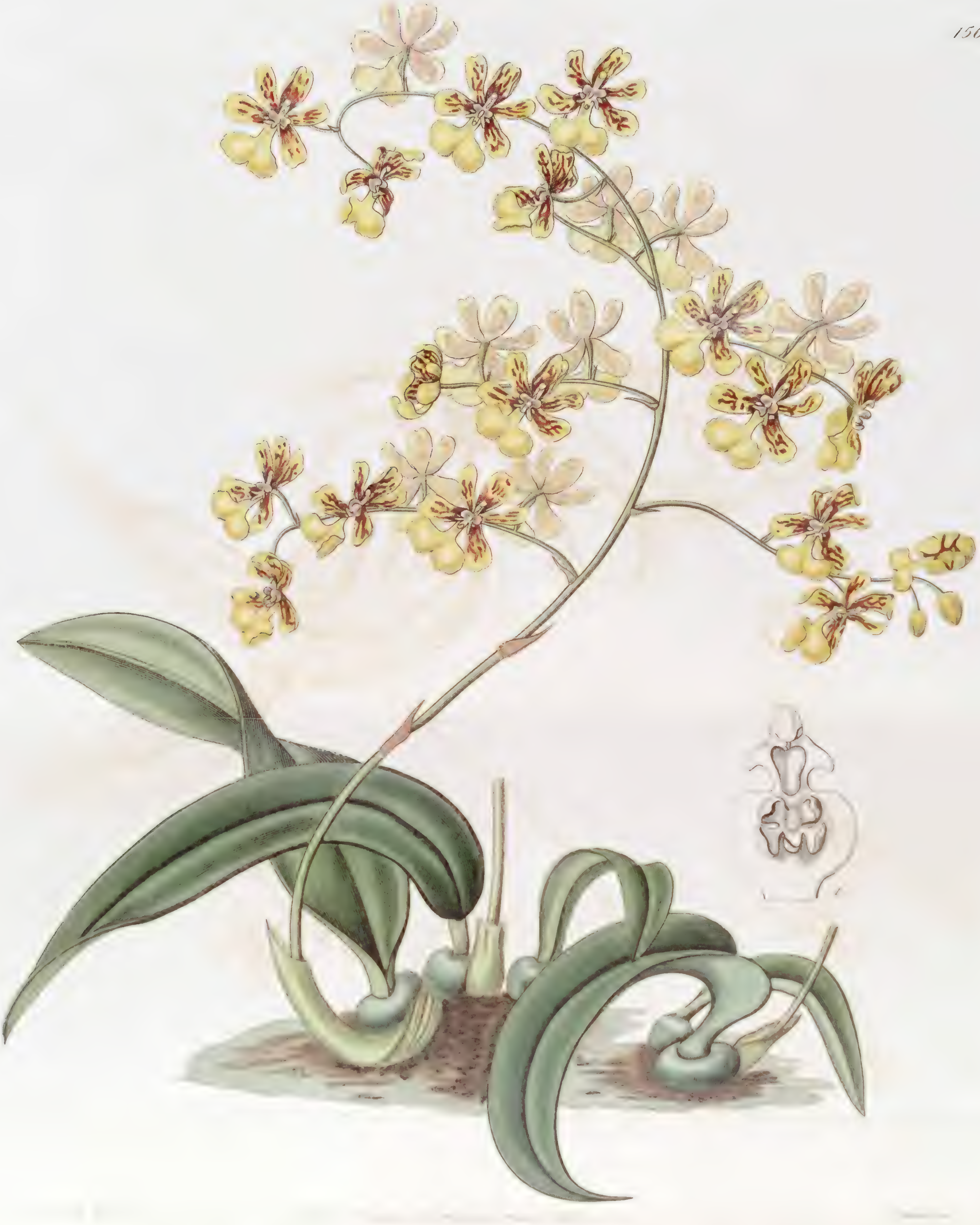
* So called after M. Duvau, a French Botanist, known as the editor of the original edition of Richard's *Analyse du Fruit;* and for some observations upon Veronica.

Of these, the subject of the accompanying Plate is one which has been in this country seven or eight years; we never saw it in flower till last year, when it blossomed abundantly upon a south wall in the Garden of the Horticultural Society in July. It is nearly related to D. dependens, but differs essentially in its leaves being usually sharp-pointed, and its flowers octandrous; while D. dependens, on the contrary, has its leaves almost always very blunt, often very little toothed, and chiefly decandrous. It is true that passages from one to the other may be discovered; but the plants are so different when growing side by side, that we cannot think it right to combine them; and where is the genus of which the species do not run the one into the other?

Propagated by cuttings of the ripe wood struck in sand under a bell-glass in a gentle heat. It will grow in any soil or situation which is dry in the summer, and well drained in winter. It would probably succeed in the crevices of rocks in Devonshire or Cornwall.

J. L.

1569.



1569

ONCÍDIUM* Harrisoniánum.

Mrs. Arnold Harrison's Oncidium.

◆

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. § *Vandeæ* Lindl. (*Introduction to the natural system of Botany, p.* 262.)
ONCIDIUM.—Suprà, vol. 16. *fol.* 1349.

§. *Folia plana; v. complicata. Sepala lateralia libera. Labelli laciniæ laterales nanæ, v. obliteratæ.*

O. *Harrisonianum;* pseudobulbis subglobosis monophyllis, foliis carnosis lineari-oblongis acutis recurvis, paniculâ ramosâ multiflorâ, sepalis petalisque linearibus obtusissimis, labelli laciniis lateralibus minutis auriculiformibus intermediâ unguiculatâ transversâ emarginatâ, cristâ 5-lobâ centro pubescente, columnæ alis deltoideis rectiusculis.

Pseudobulbi *ovi passerini magnitudine sed globosi, lætè virides, læves.* Folia 4-6 *poll. longa, omninò avenia.* Scapus *è squamâ tubulosâ proveniens, ascendens, pedalis v. ultrà.* Panicula *composita, apice cernua, ramulis divaricatis, v. decurvis.* Flores *vitellini.* Sepala *petalis paulò majora, atrofusco maculata.* Labellum *unicolor, sepalis lateralibus longius.* Crista *è tuberculis 5 constat, quorum 4 lateralia, compressa, rotundata, leviter incurvantur; quintum anticum multò est angustius et cornu parvum refert; inter omnia adest area pulvinata pubescens.*

For what purpose can the world have been adorned with these Orchideous plants? To man or animals they are scarcely ever of any known use. No honey is secreted by their flowers; neither poison, medicine, nor food, are collected in the recesses of their stems; and their very seeds seem unfit for feeding even the smallest bird. We can scarcely suppose them provided for the purification of the unwholesome atmosphere of the forest recesses in which they delight, for their organization is that of plants whose leaves perform their vital actions too slowly to effect such a purpose. For what then can they have been formed, unless to delight the sense of man, to gratify his eye by their gay colours and fantastic forms, and to shew the inexhaustible fertility of that creative power which we recognise every where in Nature.

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* See fol. 1349.

If this be not the object of those countless changes of form and colour which the Orchis tribe exhibits, we shall scarcely comprehend why in this very genus Oncidium the lip bears at its base a collection of tubercles which are not only different in every species, but so strangely varied, that

> "Eye of newt, and toe of frog,"

are the least singular of the forms that lie cowering in the bosom of their petals; the heads of unknown animals, reptiles of unheard-of figures, coils of snakes rising as if to dart upon the curious observer, may all be seen in the blossoms of the various species, whose very flowers may be likened to unearthly insects on the wing.

This very distinct species was discovered on the Organ Mountains of Brazil by Mr. William Harrison of Rio Janeiro. We have taken the liberty of naming it after a family more distinguished than any other for the number of species they have introduced, and for the success with which they have cultivated them. Whenever Horticulture shall again find an historian, he will have to record the period when the difficulty of cultivating tropical Orchideæ, which was once considered insuperable, was successfully overcome; in such a history the names of Mr. William Harrison, of Mrs. Arnold Harrison, and of Mr. Richard Harrison, will stand among the foremost.

O. *Harrisonianum* is easily recognised by its fleshy, slightly channelled, recurved leaves, each of which is placed upon a little pseudobulb, not much bigger than a sparrow's egg, but round and shining. The panicles of flowers are about a foot high, and arranged in a graceful manner, something in the way of Oncidium flexuosum. Our figure has been made from a drawing and specimen communicated by Mrs. Arnold Harrison in October 1832.

Cultivated among moss and rotten wood, in which it grows freely.

Fig. 1 is a magnified representation of the face of the column and the base of the lip, shewing the way in which the tubercles are arranged. One might fancy they were a bat's head, of which the downy centre forms the forehead, the back tubercles the ears, the horn in front the snout, and the two lateral tubercles a pair of flaccid cheeks.

J. L.

1570

169 Piccadilly.

1570

PAPÁVER* pérsicum.

Persian Poppy.

◆

POLYANDRIA *MONOGYNIA.*

Nat. ord. Papaveraceæ *Juss.* (*Introduction to the natural system of Botany, p.* 8.)

PAPAVER L.—*Sepala* 2, convexa, decidua. *Petala* 4. *Stamina* plurima. *Stylus* 0. *Stigmata* 4-20, radiantia, sessilia, super discum ovarium coronantem. *Capsula* obovata, 1-locularis, è carpellis 4-20 in thalami productione membranaceâ inclusis constans, sub stigmatum coronâ valvulis brevibus dehiscens. *Placentæ* intervalvulares intùs in dissepimenta incompleta productæ.—— Herbæ *perennes, succo albo fœtæ.* Pedunculi *ante florescentiam apice inflexi.* De Cand. prodr. 1. 117.

§ 1. *Capsulis hispidis.*

P. *persicum;* capsulis hispidis ovalibus, sepalis setosis, foliis pinnatifidis setosis: laciniis subindivisis sæpiùs aristatis, caule folioso paniculato.

Herba *annua,* $1\text{-}1\frac{1}{2}$*-pedalis, caule setoso paniculato.* Folia *glauca, pinnatifida, setis tecta, laciniis sæpiùs indivisis, aristatis, nunc pinnatim lobatis.* Alabastrus *ferè exactè oblongus, villosus.* Petala *subunguiculata, lateritia, basi maculâ viridi notata, citissimè decidua.* Stamina *brevia.* Ovarium *radiis stigmaticis* 4, *apice conicum.*

Seeds of this Poppy were received by the Horticultural Society from Mr. Otto, of Berlin, under the name of "Papaver sp. from Persia." It is an annual, which would be pretty if its petals were not so quickly deciduous. It grows a foot or a foot and half high, and flowers in June and July. It is easily propagated by seeds.

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* So called, according to the most learned etymologists, because it was commonly mixed with the pap, *papa,* given to children in order to procure sleep. This plant and its names have ever been associated with the idea of sleep in most languages, in poetry and philosophy, in history and fable. Its juice is still the best opiate known, and in general use.—*Smith.* The word *opium* is derived from the Greek ὀπὸς, juice; it being the inspissated juice of the poppy; Homer called it *Nepenthe.*

In a Botanical point of view its nearest affinity is with P. Argemone, from which it differs in having an oval not obovate fruit, with 4 not 5 stigmata, and in the glaucous colour of the leaves, which are much less divided.

J. L.

1571

[illegible]

1571

ÁSTER* adulterínus.

Glossy Aster.

◆

SYNGENESIA *POLYGAMIA SUPERFLUA.*

Nat. ord. Compositæ *Juss.* (*Introduction to the natural system of Botany, p.* 197.)

ASTER.—Suprà, vol. 3. *fol.* 183.

Sect. *Genuini, homophylli, sessilifolii, laxiflori, versiformes.* Nees.

A. *adulterinus;* foliis oblongo-lanceolatis mucronatis amplectentibus lævibus margine scabris, caule à basi paniculato-decomposito, ramis corymboso-racemosis, periclinii obovati subæqualis foliolis spathulato-lanceolatis squarrosis post florescentiam magis auctis. *Nees ab Esenb. gen. et sp. ast. p.* 85.

A. adulterinus. *Nees synops.* 22. *Willd. enum.* 2. 884. *Pursh fl. am. sept.* 2. 553.

? Symphyotrichum unctuosum. *Nees l. c. p.* 135.

A. cæspitosus. *Hort.*

Caulis *circiter pedalis, erectus, strictus, teres, striatus, glaber.* Folia *approximata, basi subcordata caulem amplectentia,* 3 *pollices longa,* 4-6 *lineas lata, patentia, lanceolata, acuminata; inferiora in medio remotè appresso-serrulata, glabra, margine scabra, rigida, et post exsiccationem fragilia, venoso-penninervia et utrinque valdè reticulata, supra nitida, lætè viridia, subtùs pallidiora; ramea pauca, remota, minora, integerrima.* Rami *folio suo breviores vel ejusdem longitudine, rigidi, angulati, biquadriflori ramulis* (*pedunculis*) *rigidis fastigiatis, foliolis parvis cordato-lanceolatis patentibus adspersis præditis.* Periclinii foliola *subæqualia, erecta, subimbricata, stricta, linearia, acutiuscula, margine subdenticulata, basi, præsertim interiora, utrinque pallida, apice viridia, crassiuscula, glabra, et dorso lævia.* Clinanthium *planum, areolatum, areolarum marginibus parùm elevatis integris, in disco papilla umbilicata* (*flosculi articulo*) *præditis.* Achænia *obconica, paucissimis setulis, infra pappum limbum constituentibus, inspersa, costisque quinque elevatis notata, quarum duæ interiores approximatæ; sulci interjecti scrobiculis porcati.* Pappus *in annulum solubilem basi cohærens, radiis pluribus albis scabris.* Ligulæ *lineares, periclinio breviores vel idem æquantes, purpurascentes, distantes.* Stylus *longus; stigmata longa, linearia.* Flosculi *disci lutei, tubulosi; tubus glaber, limbi obconici longitudine; laciniæ triangulares, obtusiusculæ.* Antherarum appendices *acuminatæ.* Stigmata *lanceolata, acuta, crassiuscula.*—Nees sub Symphyotricho.

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* See fol. 1487.

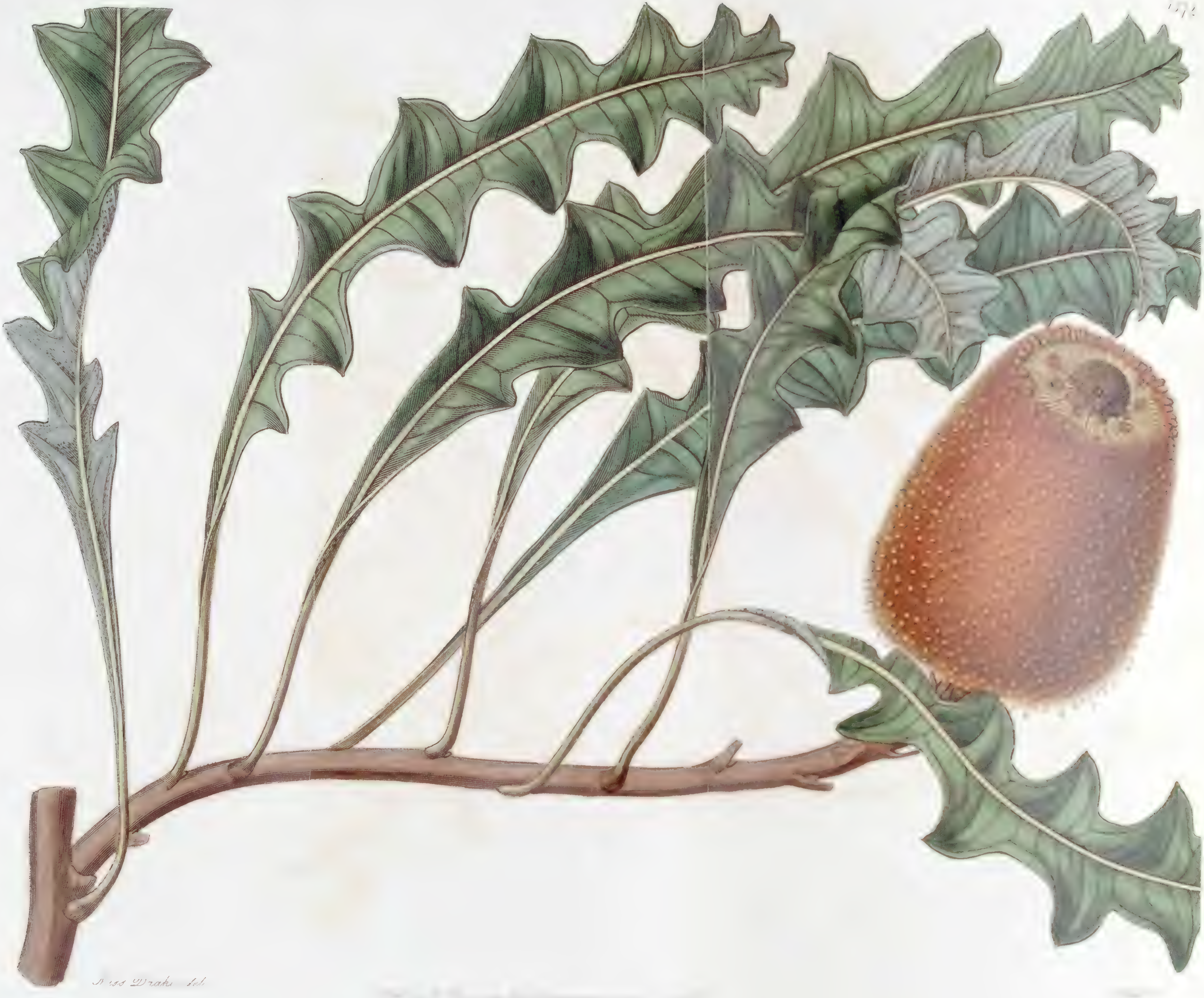
A native of North America, according to Willdenow: we are, however, not aware that any one has seen other than garden specimens, so that it may be either, as Nees v. Esenbeck suspects, some variety of A. Novi Belgii, or rather perhaps the offspring of that species and A. lævigatus, or some of those allied to it.

We find this under two different forms in our gardens; one of which is about 2½ feet high, with sharp-pointed leaves, and pale purple flowers, and agrees with the plant cultivated under the name of A. *adulterinus* in the Berlin Garden. The other, which is a much dwarfer plant, extremely compact in its habit, with short rigid branches, obtuse leaves, and pale lilac flowers, is that here figured: it is known by the name of A. *cæspitosus*.

From this last we must confess our inability to distinguish our friend Von Esenbeck's genus *Symphyotrichum*, with a sight of the original specimen of which we have been favoured by that learned Botanist. If it were not for a total absence of hairs from the stem of *Symphyotrichum*, we should suppose it and the plant now figured to be identical. As to the character upon which the supposed genus is founded, namely, the separation of the pappus from the achenia by an annular base, we find this so common a circumstance in the very ripe fruit of many species, that we cannot attach any importance to it, even as a specific, far less a generic, distinction.

A hardy perennial, flowering in September. It increases freely by division of its roots, and will grow in almost any soil or situation.

J. L.



Miss Drake del.

[illegible]

BÁNKSIA* prostráta.

Prostrate Banksia.

TETRANDRIA *MONOGYNIA.*

Nat. ord. PROTEACEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 68.)
BANKSIA.—Suprà, vol. 8. *fol.* 688.

B. *prostrata;* foliis elongatis sinuato-pinnatifidis lobis integerrimis: subter venuloso-reticulatis venulis glabriusculis lacunis tomentosis, caule prostrato tomentoso, amento aphyllo, perianthii unguibus crispato-tomentosis; laminis glabriusculis nunc apice pilosis, stigmate subulato subexsulco. *R. Br. suppl. prodr. p.* 36.

A very distinct species, found by Mr. Baxter, in 1823, on the south-west coast of New Holland, in the country about St. George's Sound. It appears to be a prostrate shrub, not exceeding a foot or two in height. Its branches are deep brown, and covered with a close down. The leaves are seated on long hairy stalks, and are deep bright green on the upper surface, but somewhat glaucous beneath, except the veins, which are brownish. The flower-heads are rather small, but of a deep rich cinnamon brown, beautifully set off by the bright yellow stigmata.

Our drawing was made in Mr. Low's Nursery in August 1832.

The species was first described in Dr. Brown's learned memoir upon the new Proteaceæ of New Holland, published in 1830. In this very curious dissertation are several highly interesting remarks upon the anatomical structure of the order, some of which, as the work must be in very few hands, we shall take this opportunity of translating, for the benefit of such of our readers as are interested in microscopical inquiries.

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* See fol. 1316.

Dr. Brown considers the position of the respiratory pores or stomata, their form, and relative size with respect to the areolations of the cuticle, to be often points of much value in determining the limits and affinity of genera, and even of their natural subdivisions. In the genus Banksia, he says, " There are no cutaneous glands" (meaning breathing pores) " on the upper surface of the leaves; those of the lower surface are oval, sometimes broader than long, with an annular simple limb, and a linear disc; they are always concealed by a sort of curly wool; when the leaves are veinless, or furnished with anastomosing veins, they are scattered pretty equally over the cuticle; but more frequently, when the veins of the leaves are reticulated, they are clustered in the bottom of the hollows between the veins. Hollows of a similar nature, and with precisely the same arrangement of clustered glands (stomata) in their bottom, exist in Nerium Oleander and odorum: these hollows were formerly well represented in the N. Oleander by Malpighi, and more recently by Krocker; both these authors considering them pores or clefts of unusual size and form. More recently they have been considered by M. Adolphe Brongniart as perforations in the outer layer of a double epidermis, the inner layer of which (in the bottom of the hollow) this author describes as destitute of glands."

To these curious observations, the accuracy of which we have ourselves verified, is prefixed the following explanation of the anomalous structure of the fruit of Banksia. Every body who has ever opened a cone of a Banksia knows that the two seeds which are contained in each cavity are separated by a loose partition; and Botanists are aware that the origin of that partition is a problem which had never been solved till Dr. Brown undertook it in the appendix to Captain King's Voyage. The explanation given of it is contained in the following description:—" The ovarium is one-celled, with two ovules. These ovules are collateral, and attached by their edge above the middle; their skin has on the outer side a longitudinal open cleft, in consequence of which the principal part of the inner membrane, which encloses the nucleus, is laid bare. Soon after fecundation the skins of the two ovules grow firmly together by the sides which are in contact; they gradually become larger and harder, till at last they form in the ripe fruit that loose bifid woody partition, to the faces of which, hollowed out by the pressure of the nuclei, the seeds are applied; these seeds are winged at the apex, and are covered by a single integument formed from the inner membrane of the ovulum."

So that Dr. Brown's opinion is, that the partition is caused by the adhesion of two slit primines, one belonging to each ovule; and that this is proved to be the fact by the circumstance of the seeds having but one integument, namely, the secondine, instead of two. But, ingenious as this explanation undoubtedly is, we cannot help remarking, that what Dr. Brown calls the primine, or outer integument of the ovulum, may rather be considered of the nature of an arillus; and that the presence of but one integument instead of two upon the ripe seeds, or even the ovulum itself, is less demonstrative of the accuracy of his explanation than it at first sight seems to be; because there is nothing to prove that Banksia has naturally more than one seminal integument, or that it does not agree in the structure of its ovulum with Alnus and the like, which have been proved by Mirbel never to have more than one integument to that part.

J. L.

1573

DUVÁUA* depéndens.

Round-leaved Duvaua.

POLYGAMIA *MONŒCIA.*

Nat. ord. ANACARDIACEÆ *R. Br.* (*Introduction to the natural system of Botany*, *p.* 127.)

DUVAUA.—Suprà, vol. 6. *n. s. fol.* 1568.

D. *dependens;* foliis in ramulis floriferis obovatis obtusis v. emarginatis parcè dentatis integrisve, floribus sæpiùs decandris, racemis foliorum longitudine.

D. dependens. *Decand. prodr.* 2. 74. *Hooker bot. misc.* 2. 176 (*α*).

Amyris polygama. *Cav. ic.* 3. *p.* 30. *t.* 239.

To this we have already adverted at fol. 1568. It is probably the species intended by Cavanilles, as it certainly is that which is considered so by Dr. Hooker in his invaluable paper upon Chilian plants in the second volume of the Botanical Miscellany.

From *Duvaua ovata* it differs not only in its leaves being almost always, especially upon the flowering branches, obovate and very obtuse, or even emarginate, with scarcely any denticulations, but also in its racemes scarcely exceeding the leaves in length, and in its flowers being altogether smaller, and usually decandrous.

Its fruit consists of little dry blackish-purple berries, which it produces abundantly upon a south wall. Its time of flowering, and mode of cultivation, are the same as those of D. ovata, fol. 1568, which see. J. L.

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* See fol. 1568.

1574

Miss Drake. del.

Pub by J. Ridgway 169 Piccadilly [illegible] 1 1833

S Watts. sc.

GOMPHOLÓBIUM* venulósum.

Veiny-leaved Gompholobium.

DECANDRIA *MONOGYNIA.*

Nat. ord. Leguminosæ *Juss.* § Papilionaceæ. (*Introduction to the natural system of Botany, p.* 87.)

GOMPHOLOBIUM.—Suprà, vol. 6. *fol.* 484.

G. *venulosum;* foliolis 3 lineari-lanceolatis venulosis mucronatis margine revolutis, stipulis petiolo longioribus, pedunculis subterminalibus solitariis apice bibracteolatis, corollis calyce longioribus.

Frutex *parvus, glaberrimus;* ramis *ascendentibus, gracilibus, subangulatis.* Folia *ternata;* foliolis *lineari-lanceolatis linearibusque, reticulato-venosis, rigidis, mucronatis, margine revolutis.* Stipulæ *virides, subulatæ, petiolo longiores.* Flores *solitarii, terminales, aut sæpiùs, ob evolutionem gemmæ ultimæ axillaris, subterminales;* pedunculis *foliis longioribus, sub apice semper, supra basin aliquandò bibracteolati.* Calyx *viridis, glaberrimus, altè 5-fidus, corollâ brevior.* Vexillum *cordatum, emarginatum, margine subcrispum, anticè vitellinum, dorso subroseum.* Alæ *et* carina *pariter vitellinæ, obtusissimæ, vexillo breviores.*

The south of New Holland seems to abound as much in Gompholobia as the south of Europe in Lathyri, for almost every new collection yields additional species of the genus. That now figured was raised by Mr. Knight, of the King's Road, from seeds collected by Mr. Baxter: it differs from all that are yet known, in its leaflets being distinctly marked with little elevated slightly anastomosing veins, after the manner of the Mirbelias. Its stipulæ are also remarkably green and persistent. Judging from M. De Candolle's specific character, it may be related to G. tetrathecoides; but that species has downy hispid branches.

This is a delicate little shrub, flowering in July and August. It requires precisely the treatment to be adverted to at fol. 1578. J. L.

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* See fol. 1468.

1575.

Miss Drake del. Pub. by J. Ridgway 169 Piccadilly [illegible] [illegible]

1575

CLÁRKIA* élegans.

Californian Clarkia.

OCTANDRIA *MONOGYNIA*.

Nat. ord. ONAGRARIÆ *Juss.* (*Introduction to the natural system of Botany, p.* 56.)

CLARKIA.—Suprà, vol. 13. *fol.* 1100.

C. *elegans ;* foliis ovatis dentatis integrisque, caule glauco racemoso, petalis rhomboideis indivisis, stigmate pubescente, ovario piloso.

C. elegans. *Douglas in litt.*

Annua. Caulis *erectus, excurrens, parcè ramosus,* 2-*pedalis, teres, glaucedine roseo suffusus ; ramis racemosè nec corymbosè dispositis.* Folia *ovata, subsessilia, nunc dentata, nunc integerrima, glabra.* Flores *in racemos excurrentes dispositi, in alabastro nutantes, sub anthesin erecti, sessiles in axillis foliorum parùm mutatorum.* Ovarium *lineare, pilis longis obsitum.* Calyx *viridis, secundus.* Petala *roseo-purpurea, rhomboidea, subsinuata, indivisa, obtusa, unguiculata.* Stamina fertilia *petalorum longitudine, patentia :* antheris *rectis purpurascentibus ;* sterilia *erecta, breviora :* antheris *albidis.* Stigma *parvum, pubescens,* 4-*lobum.*

The name of Clarkia, like that of Rose, carries a charm with it which beautifies even a weed; for it is impossible not to associate with it the idea of that sweet North American flower that in a few short years has changed from an obscure Botanical rarity to the ornament of every flower-market from London and Paris to Moscow and Stockholm.

The species now figured was raised last year in the Garden of the Horticultural Society, and blossomed in the open air from July to October. It had been discovered in California by Mr. Douglas, along with some new Eschscholtzias, and many other things of surpassing loveliness, as well as great Botanical importance.

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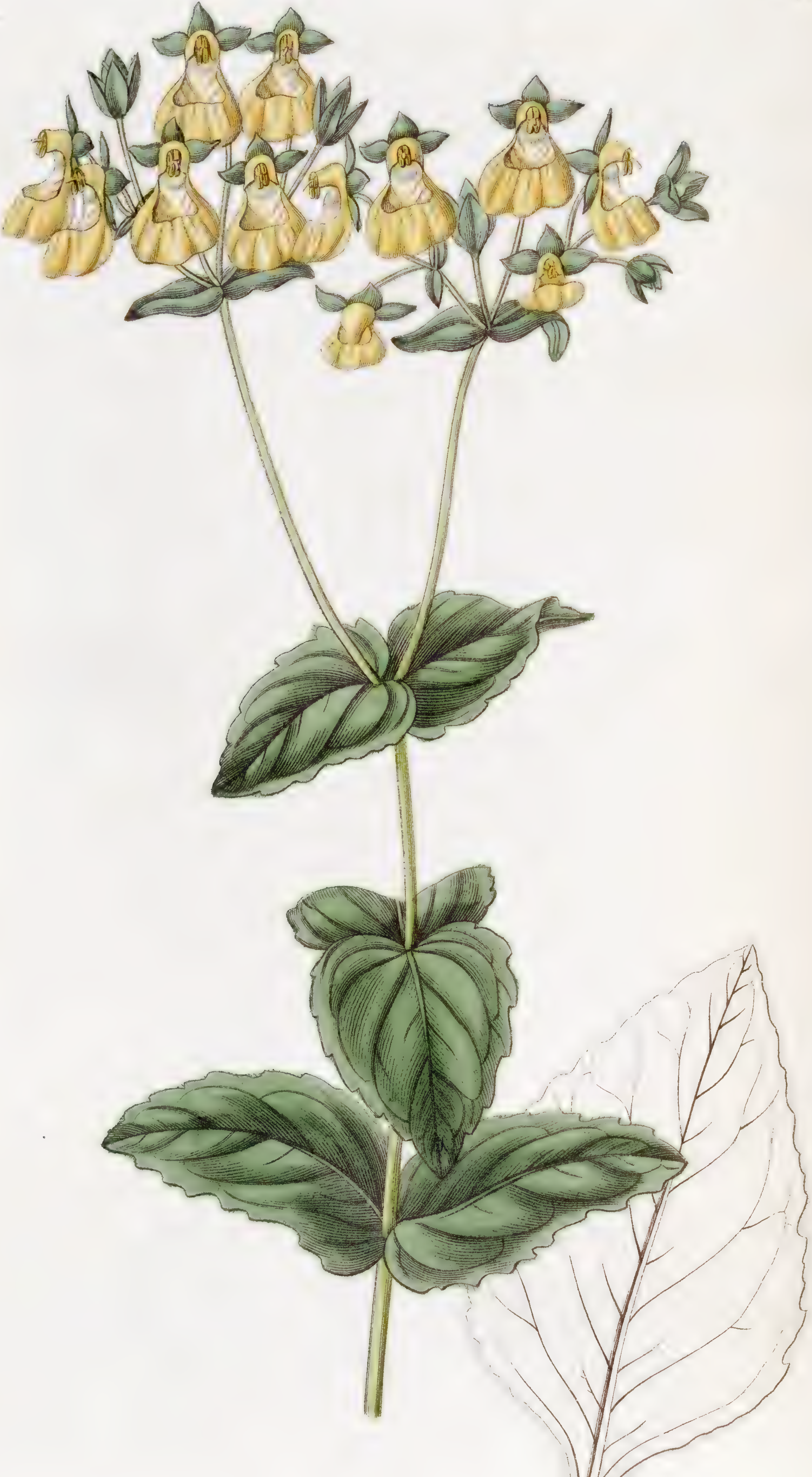
* See fol. 1100.

Like its namesake it is an annual, and is probably quite hardy, although native of a more southern climate. In aspect it is very different; its flowers appear in racemes, which keep growing longer and longer till the points are covered with flowers, and the bases are furnished with ripe fruit. The petals are of a similar colour to those of C. *pulchella*, but are not so large, and have not the deep divisions which give so singular an appearance to the flowers of the old species.

It appears from Mr. Douglas's wild specimens that the figure we have given scarcely does justice to the plant; and that under favourable circumstances it becomes more ornamental.

J. L.

1570.



Pub by J. Ridgway 169 Piccadilly Ap

CALCEOLÁRIA* Herbertiána; *var.* parviflora.

Mr. W. Herbert's Calceolaria; small-flowered variety.

DIANDRIA *MONOGYNIA.*

Nat. ord. SCROPHULARINEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 228.)
CALCEOLARIA.—Suprà, vol. 9. *fol.* 723.

C. *Herbertiana. Suprà, vol.* 16. *fol.* 1313.
Var. *parviflora;* corollis duplò minoribus: labello sulcato.

Having already described this species at the place above referred to, we have on this occasion only to make some further observations upon its characters, and to explain in what the plant now figured appears to differ.

C. *Herbertiana* is more properly a suffruticose than a shrubby plant, inasmuch as it loses its stem entirely in our English winters; and even in a warmer climate only retains the lowest part of it in a woody state. Its corymbs are usually bifid, instead of irregularly panicled, as formerly represented; and its lower leaves taper gradually into the footstalk. It is not unfrequent in the collections about London.

The variety now figured is, like it, a native of Chile, and differs in the following particulars: its lower leaves are rather more coarsely and regularly toothed, and they very slightly approach in some cases to a somewhat hastate figure; the flowers are smaller, more densely corymbose, and more numerous; and the lip, which is less inflated, has three distinct projections, which give it a sort of plaited appearance.

It is a native of the neighbourhood of Valparaiso, where it was found by Mr. Cuming (no. 530); and also of the lower ranges of the Cordilleras, near Aconcagua, whence specimens have been sent by Mr. Bridges (no. 95). From the seeds brought home by Mr. Cuming, the specimen was raised from which our figure was taken in the Garden of the Comte de Vandes in May 1832.

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* See fol. 1214.

It requires the same kind of treatment as *Calceolaria chiloensis, integrifolia,* &c.; that is to say, an open border in a dry sheltered place in the summer, and a well-ventilated greenhouse in winter.

We have been the more anxious to figure this wild variety, in order to contribute, as far as is in our power, to distinguishing real natural varieties from those beautiful but transient domesticated forms with which our Gardens are becoming filled.

J. L.

1577.

Miss Drake del.

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Watts sc.

1577

STENÁCTIS[*] speciósa.

Shewy Stenactis.

◆

SYNGENESIA *POLYGAMIA SUPERFLUA.*

Nat. ord. Compositæ *Juss.* § Astereæ. (*Introduction to the natural system of Botany, p.* 197.)

STENACTIS Cass.—*Capitulum* radiatum, radio fœmineo sæpè bi- vel pluriseriali, ligulis angustis linearibus discoque hermaphrodito fertilibus. *Involucri* subhemisphærici foliolis 2-3-serialibus, imbricatis, subæqualibus, angustis, subfoliaceis, rigidulis. *Receptaculum* planum, v. convexum, verruculoso-punctatum. *Pappus* duplex: exterior brevis paleaceus, paleolis angustis; interior uniserialis, radiis distantibus, subæqualibus, filiformibus, serrulato-scabris, deciduis. *Nees gen. et sp. aster. p.* 273. term. quibusd. mut.

S. *speciosa;* caule erecto apice corymboso multifloro glabro, foliis ciliatis acutis integerrimis: radicalibus spatulatis caulinis ovato-lanceolatis subamplexicaulibus, radio involucro duplò longiore.

Perennis. Caules *erecti, sulcati, glabri, 2-pedales, corymboso-ramosi, lætè virides.* Folia *ciliata, acuta, glabra, atroviridia, integerrima;* radicalia *spatulata, in petiolum longum angustata;* caulina *omnia sessilia: superiora acuminata.* Ramuli *monocephali.* Capitula *magna, speciosa, in pedunculos longos pilosos nudos insidentia.* Involucrum *hispido-ciliatum, hemisphæricum, ligulis ferè 3-plò brevius, subbiseriale: foliolis subulatis creberrimis.* Ligulæ *circiter* 120, *atroviolaceæ, obtusæ, indivisæ, v. apice denticulatæ.* Discus *intensè luteus.*

A hardy perennial, native of California, whence it has been sent by Mr. Douglas to the Horticultural Society. It is very shewy, and flowers from July to October. It increases freely by parting its roots; and it also produces seeds abundantly.

Although a perennial, this may also be treated as an annual; for seedlings flower early enough the very first year to ripen their seeds. It will grow in any common garden soil, and seems to require no care in its cultivation. A bed of it thickly planted is very pretty.

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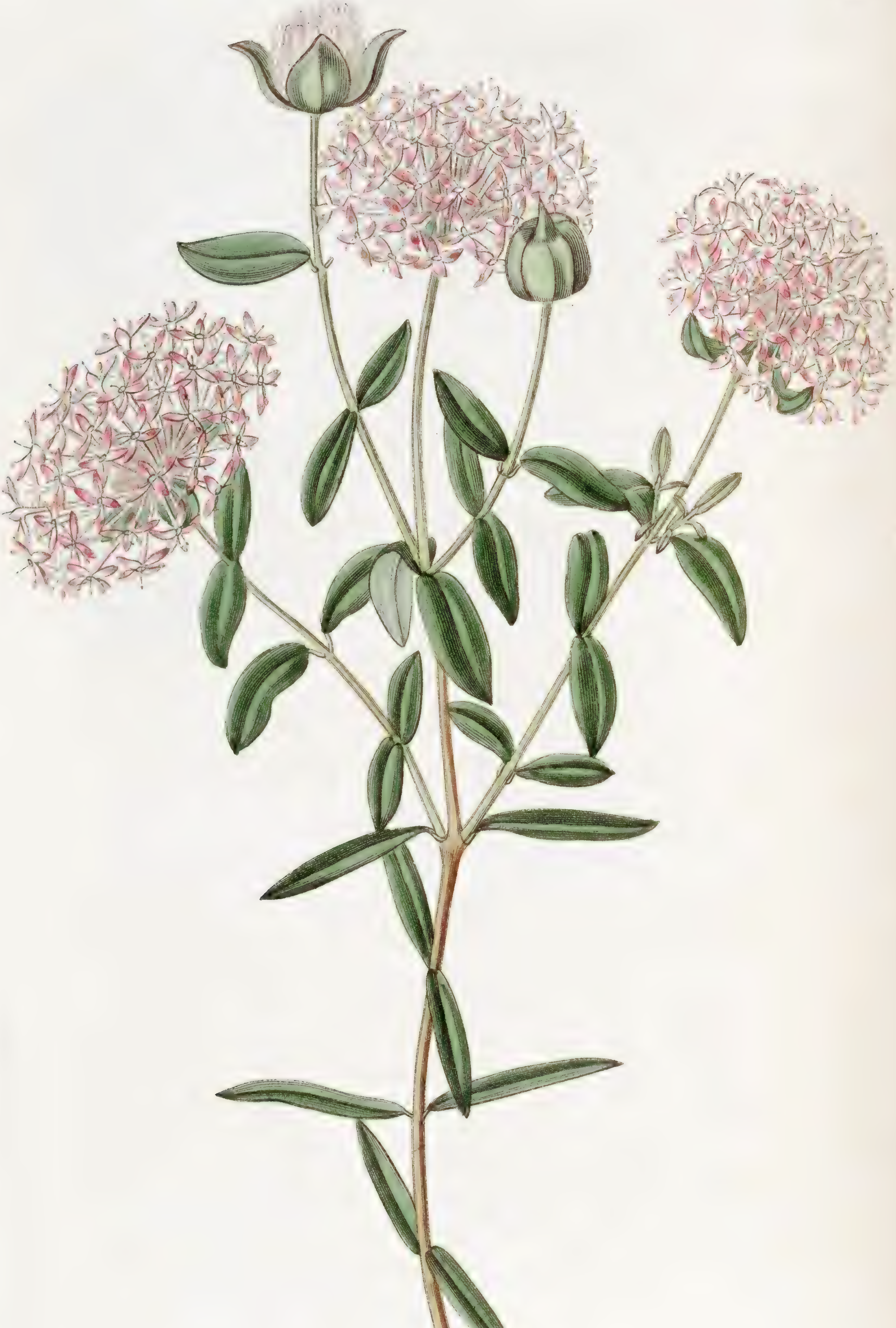
[*] Apparently from στενάζω, to sigh; if so, the application is unknown to us. Could the author of the name have had in view what his countrywomen call *couleur de soupir?*

It entirely agrees with the genus Stenactis as limited by Nees v. Esenbeck in the character given above.

J. L.

1575.



[illegible] del. [illegible] J. Watts sc.

PIMELÉA* hispida.

Long-stalked Pimelea.

DIANDRIA *MONOGYNIA.*

Nat. ord. THYMELÆÆ *Juss.* (*Introduction to the natural system of Botany, p.* 75.)

PIMELEA.—Suprà, vol. 15. *fol.* 1268.

1. *Folia opposita. Capitulum terminale. Involucrum foliis rameis dissimile.*

P. *hispida;* involucris tetraphyllis longè pedunculatis: foliolis subrotundo-ovatis extùs glabris intùs levissimè pubescentibus capitulo dimidio brevioribus, calycis tubo dimidio inferiore hispido, foliis oblongo-lanceolatis linearibusque.

P. hispida. *R. Br. prodr.* 360.

Frutex *omni parte glaber, salvis floribus, erectus, ramosus;* ramis *gracilibus, ascendentibus, pallidè viridibus, mox rufescentibus.* Folia *inferiora linearia, opposita, superiora oblonga, v. oblongo-lanceolata, subalterna.* Capitula *ante expansionem subglobosa, apiculata.* Involucri *foliola subrotundo-ovata, extùs glabra, intùs levissimè pubescentia, margine roseo-colorata.* Calyces *rosei;* tubo *inarticulato, sericeo, basi pilis longis hispido, apice sub laciniis pilis similibus barbato.*

A beautiful little shrub, native of the south-west coast of New Holland, where it was originally discovered by Dr. Brown. It is nearly allied to the older and better-known P. rosea, to which it is superior in beauty, and from which it is readily known by its broader leaves, larger flower-heads, and especially by the long stiffish hairs that clothe the base of the calyx densely, and the apex sparingly, so as to give the flowers the aspect of delicate feathers. These hairs are long, uninterrupted, very transparent tubes, with a considerable number of minute particles within their cavity; they are doubtless extremely well adapted to shew distinctly that curious motion in the fluids of plants which forms so singular a species of circulation in their system, and which seems to be universal in hairs, so long as they are alive.

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* See fol. 1268.

There is no difficulty either in cultivating this species, or in striking it from cuttings, provided attention be paid to the following circumstances. All plants from the southern coast of New Holland, or from Van Diemen's Land, naturally enjoy a climate which in the winter season is about as cold as the winters of the south of France: they are found very much in dry exposed situations; and many of them, especially the Pimeleas, are physically incapable of enduring cold and moisture together, although the former by itself, if above a certain amount, is not prejudicial to them. They, therefore, should be kept in winter in a cool airy place, where a perfect command of ventilation is possessed; and the temperature should not be allowed to rise much above 40° or 45° in the winter months. Upon this plan Mr. Knight, of the King's Road, manages the young plants obtained from the collections formed by Mr. Baxter, and with such success that no doubt can be entertained of its excellence. Our drawing was made in Mr. Knight's Nursery in June 1832.

J. L.

1579

[illegible]

BENTHÁMIA* fragífera.

Strawberry-fruited Benthamia.

◆

TETRANDRIA *MONOGYNIA.*

Nat. ord. CORNEÆ *De Cand.*

BENTHAMIA.—Calycis limbus minimus, 4-dentatus. *Petala* 4, carnosa, cuneata. *Stamina* 4. *Stylus* 1. *Fructus* è drupis plurimis concretis coadunatus; quoque carpello biloculari. *Semina* solitaria, pendula.——Arbores *v.* frutices. Folia *opposita.* Flores *capitati,* involucro *petaloideo cincti.*

B. *fragifera.*
Cornus capitata. *Wall. in Roxb. fl. ind.* 1. 434. *Pl. asiat. rar. v.* 3. *p.* 10. *t.* 214.

For the excellent drawing and following account of this very rare plant we are obliged to Mr. Booth, Gardener to Sir C. Lemon, Bart., M.P., of Carclew, in Cornwall, in whose rich collection it flowered, and fruited last year for the first time in Europe.

"This valuable addition to our collection of hardy shrubs was raised in 1825, in the Garden of John Hearle Tremayne, Esq., at Heligan, Cornwall, from seeds received from his relation Sir Anthony Buller, during his residence in the East Indies. It is a very handsome evergreen, flowering in great profusion during summer, and producing an abundance of large, globular, reddish fruit in autumn.

"The plant from which the accompanying figure and description were made has attained the height of a large shrub. The branches are round and twiggy, with a pale-brown or ash-coloured bark. They are destitute of leaves, with the

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[*] The Benthamia of Achille Richard being the same as Herminium, we have great pleasure in availing ourselves of the present opportunity of naming this very distinct genus in compliment to our highly valued friend George Bentham, Esq.

exception of the numerous small twigs, which are each furnished towards their extremity with three or four large leaves, and about the same number of smaller ones. The size of the former varies from 2½ to 3 inches in length, and an inch in breadth in the widest part, from which they regularly taper towards the base and point. They are slightly pubescent on both sides; beneath they are of a silvery green; above they are of a rich light green colour. The footstalks are short and slender, rounded beneath, and flattened above.

"The flowers are terminal, congregated together in globular heads at the extremity of a round, striated, pale-green peduncle, varying from an inch to two inches in length, and surrounded by a large involucre, composed of four coloured parts resembling petals. Each of the segments is ovate-acuminate, and about half an inch in breadth; when expanded, the whole measure nearly two inches in diameter. The flowers are greenish, small, and inconspicuous, appearing destitute of petals, in place of which there are four permanent, elevated, fleshy protuberances, encompassing the four stamens, which are alternate with them, and rather shorter than the petal-like processes. The style is simple, round, thick, and persistent; about twice the length of the stamens. The fruit when ripe is of a reddish colour, a good deal resembling that of the mulberry, but exceeding it considerably in size. The flesh is yellowish white, rather insipid, but not unpleasant, although a little bitter to the taste. The seeds are six, eight, or more in number, apparently contained in two cells, surrounded with a viscid pulp.

"The plant seems to flourish extremely well in common garden soil, and may be increased with facility either by seeds or layers."

Dr. Wallich describes it thus:—

"It grows to be a small tree, which, according to Sir R. Colquhoun's observation, has much of the habit of the custard apple. *Branches* woody, spreading, opposite, like all the other parts covered with short, stiff, adpressed hairs; the younger ones slightly compressed. *Leaves* opposite, coriaceous, tapering at both ends, entire, about two inches long, scabrous, covered on both sides with reflexed hairs, which, on being rubbed off, leave an impression on the surface; glaucous, very pale beneath, with elevated, sometimes pink-coloured, sublongitudinal, arched nerves, having each a minute gland in their axils. *Petioles* very short, furrowed. *Head* terminal, solitary, round, as large as a moderate-sized cherry, thickly covered with flowers, supported by a sulcated, club-shaped peduncle, which widens at the upper end into a convex ligneous receptacle for the insertion of the flowers. *Involucre* consisting of four spreading, somewhat unequal, coriaceous, yellow, obovate-cuneate, sometimes broad-ovate, veined, scabrous leaves, an inch long, rounded at their ends, with a short, slightly grooved point. *Calyx* cylindric, pubescent, with four oblong, erect, obtuse segments. *Corol* twice as long as the calyx, consisting of four spreading cuneate leaflets; their upper surface slightly keeled. *Stamens* equalling the petals, subulate, recurved. *Anthers* ovate. *Ovarium* immersed in the receptacle, oblong, 2-celled, with a pendulous ovulum in each cell. *Style* thick, clavate, striated, shorter than the stamens, surrounded at its base by a short, cylindric, fleshy, crenulate *nectary*. *Stigma* truncate.

" *Obs.*—This beautiful tree is very distinct from all the other species. It approaches a little to C. florida and canadensis; but is easily recognised by its copious, harsh, adpressed hairs, its stature, which is that of a large shrub or small tree, and the position of its leaves."

We do not understand upon what principle this very distinct genus has been combined with Cornus, from which it differs essentially both in flower and fruit. Whether or not C. *florida*, which agrees with it in habit, is also a species of Benthamia, our materials do not enable us to determine.

J. L.

1550

Miss Drake del. Publish'd by J. Ridgway 169 Piccadilly May 1 1833 [illegible]

DUVÁUA* latifólia.

Broad-leaved Duvaua.

POLYGAMIA *MONŒCIA.*

Nat. ord. Anacardiaceæ *R. Br.* (*Introduction to the natural system of Botany, p.* 127.)

DUVAUA.—Suprà, vol. 6. *n. s. fol.* 1568.

D. *latifolia;* foliis oblongis grossè dentatis undulatis subcomplicatis acutis, floribus sæpiùs octandris, racemis densis foliis subæqualibus.

D. dependens. *Hooker bot. misc.* 3. 176 (γ).

D. latifolia. *Gillies MSS.*

Frutex *sempervirens, terebinthinum fortè olens.* Folia *atroviridia, nitida, tali modo undulata ut quasi plicata videntur, breviter petiolata, grossè et subduplicato-dentata.* Inflorescentia *ut in D. ovata.* Flores masculi; disco *lato lobato: sinubus numero staminum respondentibus;* rudimento *tantùm pistilli.* Flores hermaphroditi; tubo calycis *intus disco non lobato induviato;* staminibus *subæqualibus, è fauce tubi ultra discum;* ovario *simplici, supero, monostylo: stigmate capitato: ovulo solitario appenso.*

A native of Chili, where it seems to be very common, and called *Huingan.* Whatever may be thought of D. *ovata* and *dependens,* there can be no doubt that this is a totally distinct species; for not only are the leaves in their outline, surface, and colour, and the whole plant in its habit, very different, but we find it maintain all its peculiarities unchanged when raised from seeds.

A pretty phenomenon is exhibited by the leaves when thrown into water: after lying a short time, they will be found to start and jump as if they were alive, while at the instant of each start a jet of oily matter is discharged into the water. This circumstance appears to be owing to some peculiar irritability of the parenchyma of the leaves, which, when acted upon by water, causes the turpentine-sacs, that abound in the leaves, to empty themselves with violence; and the movements of the leaves may be ascribed to the recoil produced by the discharge. Thus we have in every leaf a sort of vegetable battery, which will keep up its fire until the stock of ammunition is expended.

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* See fol. 1568.

Like the other species already figured at fol. 1568 and 1573, this is about as hardy as a myrtle. It is increased by seeds, which are often imported from Chili. Flowers in June and July.

From the fruit of this, or a nearly allied species, we are informed by Dr. Gillies that the Pehuenco Indians prepare by fermentation an intoxicating liquor.

J. L.

1551.

[illegible]

LUPÍNUS* élegans.

Drooping-leaved Lupine.

◆

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ *Juss.* (*Introduction to the natural system of Botany*, *p.* 86.)

LUPINUS.—Suprà, *vol.* 13. *fol.* 1096.

L. *elegans;* herbaceus erectus molliter pilosus, racemis elongatis pedunculatis, floribus subverticillatis, calycis sericeo-pilosi labio inferiore acuto integro, foliolis lanceolatis acutis subtùs adpressè pilosis, stipulis setaceis. *De Cand. prodr.* 2. 408.

L. elegans. *Humb. et Kunth. n. gen. et sp.* 6. 477.

Annuus, 2-*pedalis, undique molliter pilosus.* Foliola 5-9, *lineari-oblonga, v. lanceolata, pendula, petiolo subæqualia.* Stipulæ *discolores, apice subulatæ.* Racemi *multiflori, subverticillati.* Bracteæ *parvæ, subulatæ, deciduæ.* Calycis *labium inferius acuminatum, superius ovatum obtusum;* bracteâ *minimâ utrinque inter labia.* Flores *primùm atro-violacei disco vexilli albo basi luteo, demùm roseo suffusi.*

A very pretty annual Lupine, native of Mexico, whence seeds were sent to the Horticultural Society by Dr. Deppe in 1831. It flowers in the open air, most abundantly, in June. Its seeds are ripened in tolerable quantity, and by them it is increased.

Of all the annual Lupines this is by far the handsomest: it even rivals the best of the perennial species.

J. L.

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* See fol. 1198.

1512

PIMELÉA* sylvéstris.

Forest Pimelea.

◆

DIANDRIA *MONOGYNIA.*

Nat. ord. THYMELÆÆ *Juss.* (*Introduction to the natural system of Botany, p.* 75.)

PIMELEA.—Suprà, vol. 15. *fol.* 1268.

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2. *Folia opposita. Capitulum terminale. Folia floralia rameis subsimilia.*

* P. *sylvestris;* foliis utrinque glabris lanceolatis acutis: floralibus 4-5 capitulo multifloro brevioribus, perianthiis glabris: tubo infundibuliformi. *R. Br. prodr.* 361.

Frutex *glaber, strictus; ramis teretibus, pallidè viridibus.* Folia *ovato-lanceolata, v. lineari-oblonga, acuta, utrinque glabra.* Capitula *terminalia, ramulis lateralibus breviora, multiflora;* bracteis *involucri lineari-oblongis, floribus brevioribus.* Flores *albi, glabri, roseo leviter tincti.* Calyx *limbo infundibulari, in tubum basi valdè angustatum producto.* Stamina *longè exserta.*

A native of the southern coast of New Holland, where it was originally found by Dr. Brown, and more recently by Mr. Baxter. For the opportunity of making our drawing, we are obliged to Mr. Knight, of the King's Road, in whose Nursery the species flowered in June last.

A hardy and very pretty greenhouse shrub, easily increased by cuttings.

J. L.

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* See fol. 1268.

1583.

[illegible]

POTENTÍLLA* glandulósa.

Glandular Cinquefoil.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. Rosaceæ *Juss.* (*Introduction to the natural system of Botany, p.* 81.)

§ Potentilleæ *Juss.*

POTENTILLA.—Suprà, vol. 15. *fol.* 1359.

P. *glandulosa;* caulibus erectis foliisque glanduloso-pilosis: radicalibus pinnatis 3-4-jugis foliolis oblongis grossè duplicato-serratis: caulinis superioribus sessilibus ternatis foliolis oblongo-lanceolatis acutis, stipulis membranaceis subrotundis cuspidatis, paniculis subdichotomis paucifloris, laciniis calycinis ovatis acutis integerrimis, petalis ovatis obtusis calyci æqualibus.

Omnes partes pilis glandulosis viscidis obtectæ. Folia *inferiora caulis pinnata, sed foliola magis magisque approximata versus fastigium.* Rami paniculæ *corymbos paucifloros gerunt, foliis duobus, oppositis, sessilibus, simplicissimis, lanceolatis, serratis, stipatos.* Flores *parvi, lutei.*

A new species lately received by the Horticultural Society from California, where it was found by Mr. Douglas. It is botanically allied to P. *viscosa* (fol. 1492), but is obviously and essentially distinguished from that species.

It is a hardy perennial, easily increased by the division of its roots.

Our drawing was made in the Chiswick Garden in August last.

J. L.

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* See fol. 1379.

1584

[illegible] del. [illegible] [illegible]

PULTENǼA* rosmarinifólia.

Rosemary-leaved Pultenœa.

DECANDRIA *MONOGYNIA.*

Nat. ord. Leguminosæ *Juss.* (*Introduction to the natural system of Botany, p.* 86.)

PULTENÆA.—Suprà, vol. 5. *fol.* 378.

P. *rosmarinifolia;* capitulis multifloris, bracteis calycibus brevioribus, foliis linearibus mucronatis margine revolutis subtùs pubescentibus, stipulis 2 in unam bifidam concretis petiolo longiorem.

Frutex *ramosus, sempervirens; ramis teretibus, pubescentibus, murinis.* Folia *Roris marini omninò facie, capitulis longiora.* Calyces *intus rosei.* Flores *lutei,* carinâ *sanguineâ.*

This pretty new species of an extensive New Holland genus was found on the south coast of New Holland by Mr. Baxter, and was raised in the Clapton Nursery, where our drawing was made last May, by favour of Messrs. Lowe and Co.

It is a greenhouse shrub, easily increased by cuttings.

From P. *stipulacea* it is easily known by the revolute margins of its leaves, and its much shorter bracteæ. Mr. Cunningham remarks to us, that P. *mucronata* of some few Gardens, and of the Botanical Cabinet, is also closely allied to it, but is known by the want of the numerous hairs that clothe the stems and the under side of the leaves.

J. L.

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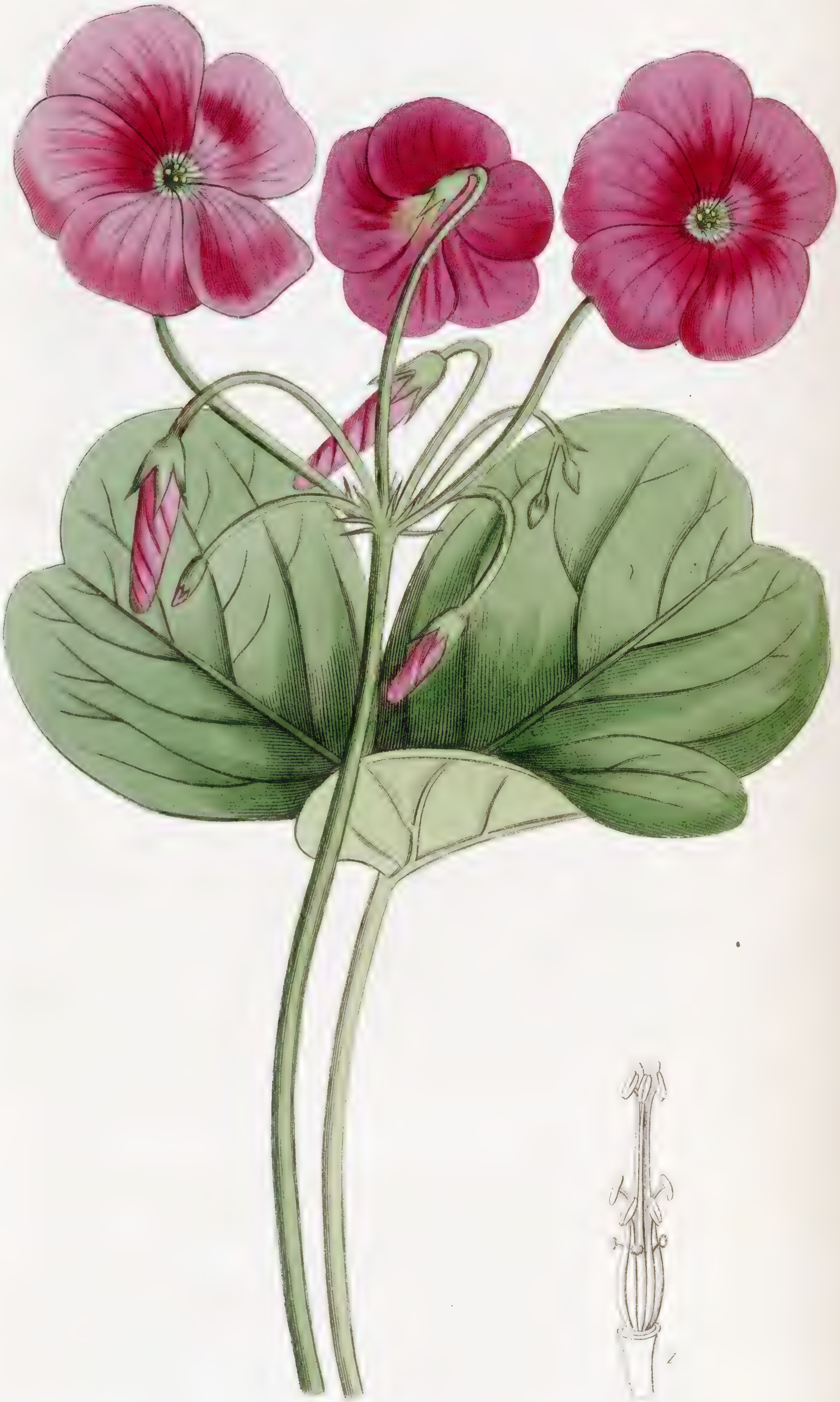
[*] Named by Sir James Smith in honour of Dr. Richard Pulteney, a biographer of Linnæus, and a respectable Botanist. His writings are said to have "contributed more than any work, except perhaps the works of Stillingfleet, to diffuse a taste for Linnean knowledge in this country."


1

OXÁLIS* Bówiei.

Bowie's Oxalis.

◆

DECANDRIA *PENTAGYNIA.*

Nat. ord. OXALIDEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 140.)

OXALIS.—Suprà, vol. 15. *fol.* 1249.

Ox. *Bowiei;* radice bulbosâ, foliis ternatis, petiolo viridi, sexunciali, foliolis magnis, rotundatè obversèque cordatis, viridibus, medio biunciali majore, scapo petiolis longiore viridi nutante, dein suberecto, umbellâ circiter 12-florâ, bracteis minutis rubescentibus, pedunculis 1-3-floris 1½-uncialibus ex viridi rubescentibus curvatis, suberectis, dein rectè devexis, calycis foliolis oblongis, acutis, rubro marginatis, corollæ tubo luteo limbo saturatè roseo, expansione 1¾-unciali; staminibus tubo brevioribus, stigmatibus provectioribus, quinque cæteris longioribus; plantâ totâ (perianthio excepto) minutissimè pubescente.—*W. H.*

"This most beautiful and florid plant is hardy, and in the open ground will flower in the autumn; but it blossoms most profusely when kept in a pot under glass, especially if, after a short period of rest at midsummer, it is placed in a stove or warm greenhouse for a very short time to make it start freely. The specimen from which the sketch is made grew in a 5½-inch pot, from which arose fifteen nearly simultaneous scapes, with a succession of younger ones, and about thirty of its great leaves, of the most fresh and lively green. Its flowers expand in a very moderate temperature."

For the foregoing notes upon this very interesting species we are indebted to the Hon. and Rev. W. Herbert.

J. L.

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* See fol. 1249.

1556

Pub by J. Ridgway 169 Piccadilly May. 1. 18

AMY′GDALUS* Pérsica; *alba.*

The White Peach.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. Amygdaleæ *Juss.* (*Introduction to the natural system of Botany, p.* 84.)

AMYGDALUS.—Suprà, vol. 14. *fol.* 1160.

Garden Variety.

The White Peach is one of those curious variations from the natural state of a species, the origin of which is as little known as the cause that may have produced it. One would scarcely have expected that a plant, which, like the Peach, in its ordinary state is quite remarkable for the rich rose or purple colour not only of its fruit, but of its flowers and even of its branches and leaf-stalks, would ever acquire a tendency to lose its brilliant tints, and to assume the pallid hue of sickness; unless, at the same time, it became unhealthy. This variety, however, and the White Nectarine, both of which are perfectly healthy, and not less hardy than the coloured kinds, shews that the loss of colouring-matter in plants is not always a sign of disease, but may arise from some constitutional peculiarity by no means incompatible with health.

It is now well known that whiteness in vegetation is very different from absence of colour; and that while the latter is caused by the total want of the colouring-matter, or chromule of plants, the former is caused by the chromule being of some exceedingly pale tint; for, as M. De Candolle has justly remarked, if an apparently white flower is placed before a perfectly white sheet of paper, it will always be found to exhibit some tint of yellow, or pink, or blue, or green, &c.; a circumstance of which the French flower-painter Redouté successfully availed himself in his Botanical drawings.

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* See fol. 1160.

There is, perhaps, no subject of more interest than the cause of colouring in plants; it is one upon which till lately no very definite notions were possessed; but it has at length attracted the attention of the skilful vegetable-chemists of Geneva; and the phenomena relating to it are daily becoming more and more intelligible. It appears, that the opinion long since expressed by Lamarck, that when leaves and fruits acquire their autumnal colouring, they are in a morbid condition; and that flowers are, from their birth, in a state analogous to that of leaves in decay, is very near the truth. Taking the green colour so prevalent, and so frequently exclusive, in vegetation, as the fundamental colour of plants, it appears that deviations from it are chiefly caused by their chromule being combined with oxygen in different degrees. When leaves are green, they absorb oxygen at night, and part with it by day; but just before they change their colour, they cease to part with this gas, continuing, however, to absorb it at night. Hence it has been inferred by Mr. Macaire, that oxygenation takes place, which, in the first instance, discharges the blue, and leaves the yellow, and next produces red; for in all cases red is preceded by yellow in leaves which change their hue. It is supposed that other colours may be caused by alkaline matter, or peculiar vegetable acids, being present; and that in what are called white flowers, the chromule is only in an imperfect condition; as apparent evidences of which, De Candolle points out, 1, the analogy of the colour with that of blanched plants; 2, the much greater proportion of white flowers in northern than in equatorial countries; and 3dly, the well-known fact, that many flowers which are at first white become coloured afterwards. For further information upon this highly curious subject we refer the reader to De Candolle's valuable *Physiologie Végétale.*

The White Peach is a hardy ornamental shrub, with the habit of an Almond. It flowers in May, and is increased like the other varieties. Its fruit has little merit.

J. L.

1527

ŒNOTHÉRA* tenélla; *var.* tenuifólia.

Large Purple Chilian Evening Primrose.

OCTANDRIA *MONOGYNIA.*

Nat. ord. Onagrariæ *Juss.* (*Introduction to the natural system of Botany, p.* 56.)

ŒNOTHERA.—Suprà, vol. 2. *fol.* 147.

Œ. *tenella;* annua, caule simplici v. ramoso erecto v. ascendente glabro, foliis obtusis linearibus v. lineari-spatulatis planis v. canaliculatis rectis v. recurvatis nunc subdentatis, petalis obovatis crenulatis, staminibus patentibus æquilongis, stigmatibus 4 subrotundis glandulosis, capsulis cylindraceis tomentosis.

Œ. tenella. *Cavan. ic.* 4. 68. *t.* 396. *f.* 2. *Flora Peruviana* 3. *t.* 316. *De Cand. prodr.* 3. 48.

β foliis longioribus magis glaucis, floribus majoribus.

Œ. tenuifolia. *Cav. ic.* 4. 67. *t.* 397. *De Cand. prodr.* 3. 48.

When a little purple-flowered Evening Primrose was introduced some years since from Chile, it was immediately recognised as what had been called Œ. tenella by the Spanish Botanist Cavanilles. Grown in very poor soil it had a simple stem, terminated by a few small axillary blossoms; but planted in the rich cultivated earth of the Gardens round London, it branched, and acquired greater vigour, putting forth longer and broader leaves, so that it could scarcely be recognised as the poor starveling stranger that had been just received. In course of time it was neglected, for its novelty was gone, and its flowers wanted size; so that at last the little Œnothera tenella was only to be found in botanical collections.

In 1829 the collectors who went out to Chile and the islands of the Pacific with Captain Beechey, returned; and

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* See fol. 1142.

Mr. Lambert procured from them, among other things, specimens of another Evening Primrose, the Œ. *tenuifolia*, upon which ripe seeds were found. These, being sown, produced the plant now figured, which is, as far as Gardens are concerned, a very different plant, but which, in the eye of a Botanist, can hardly be considered distinct. It differs from Œ. *tenella* in having longer and more channelled leaves, and much larger and far more shewy flowers; for while in Œ. *tenella* the flowers are half hidden by the leaves, in Œ. *tenuifolia* the leaves can scarcely be discovered for the flowers.

Beyond these differences we can discover nothing worthy of notice; and in our wild specimens so many gradations of size are visible in all the parts, that we feel it impossible to consider the two supposed species as any thing more than wild varieties. Among the specimens distributed by Mr. Cuming, No. 522, referred by Dr. Hooker and Mr. Arnott to Œ. *tenella*, is precisely intermediate between the two; while the specimen now represented has flowers much larger than any wild ones we have met with.

Mr. Don, to whom we are obliged for some notes on the subject, considers it to be also the Œ. *subulata* of the *Flora Peruviana;* but this we are not disposed to admit: at least it is very different from the specimens from Conception referred to Œ. *subulata* by Hooker and Arnott.

A hardy annual of great beauty, requiring no particular treatment, and ripening seeds in abundance. It flowers in July and August.

J. L.

[illegible]

[illegible] [illegible] [illegible]

CALCEOLÁRIA* rugósa.

Sage-leaved Slipper-flower.

◆

DIANDRIA *MONOGYNIA.*

Nat. ord. Scrophularineæ *Juss.* (*Introduction to the natural system of Botany*, p. 228.)

CALCEOLARIA.—Suprà, vol. 9. *fol.* 723.

C. *rugosa;* fruticosa, ramis junioribus pulverulento-lanatis, foliis oblongo-lanceolatis grossè divergenti-serratis rugosis, pedunculis terminalibus subtrichotomis apice cymosis.

C. rugosa. *Ruiz et Pavon fl. Peruv.* 1. 19. *t.* 28. *f.* 6. *Hooker in exot. fl.* 2. *t.* 99. *Lindl. in hort. trans. vol.* 6. *p.* 63. *Hooker et Arn. Bot. of Beech. voy. p.* 39.

Caulis *fruticosus, erectus, ramosus, 2-3-pedalis et ultra; ramulis purpureis, junioribus lanâ pulverulentâ obductis.* Folia *rugosa, atroviridia, serraturis grossis divergentibus marginata; supra glabra, subtus arachnoideo-pubescentia, in petiolum angustata.* Flores *lutei, nunc solitarii aut terni quaternive terminales, nunc cymosi, in apicem ramulorum pedunculiformium, paniculatorum, trichotomorum.* Corollæ *labium superius parvum, ovatum, inferiore inflato inflexo intus plicato ferè absconditum.*

Although this was introduced so long ago as 1824, it is still uncommon; and yet there is not one of the shrubby species which so well deserves cultivation. In many respects it approaches C. *integrifolia,* the only one with which it can be confounded; but it is readily known by its deeper yellow flowers, its brownish purple branches slightly covered with wool on their youngest parts, by the coarser diverging serratures of its leaves, and, as Dr. Hooker has well observed, by the small upper lip of its corolla. As far as beauty is concerned, it is much the better of the two; for the leaves are of a brighter green, and the flowers of a more striking appearance.

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* See fol. 1214.

It is a half-hardy plant, requiring in the winter no protection beyond a cold frame, or even a roof that extends over the border in which it is planted. Flowers all the summer long.

Found in various parts of Chile. We have it from Cumbre, a pass in the Andes, from Mr. M'Rae, and from the neighbourhood of Valparaiso, where it is common, according to Mr. Bridges, whose No. 89 it is.

J. L.

1589

AMELÁNCHIER* flórida.

Many-flowered Amelanchier.

◆

ICOSANDRIA *PENTAGYNIA.*

Nat. ord. POMÁCEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 83.)
AMELANCHIER.—Suprà, vol. 14. *fol.* 1171.

A. *florida;* foliis oblongis utrinque obtusis versus apicem grossè serratis semper nudis, bracteis stipulisque apice plumosis deciduis, racemis strictis multifloris, staminibus calyce extùs glabro brevioribus.

Frutex *erectus, glaber, ramis viridibus v. fusco-viridescentibus.* Folia *oblonga, basi utrinque obtusa, nunquam pubescentia nisi aliquando sub vernatione, versus apicem grossè serrata.* Stipulæ *brunneæ, marcidæ, lineares, intus ad apicem villis longis plumosæ; citissimè deciduæ.* Racemi *terminales, cylindracei, multiflori, glaberrimi, stricti;* bracteis *linearibus, acutis, apice villosis, citissimè deciduis.* Calyx *extùs glaber, intùs pubescens;* dentibus *acuminatis, staminibus longioribus v. æqualibus.* Petala *lineari-spatulata.* Stamina *erecta, brevissima.*

A native of North-west America, where it was found by Mr. Douglas. It forms a handsome hardy shrub, in the way of the Snowy Mespilus, flowering in May. Like that species it is best propagated by layers.

It is at once recognised by the shortness of the stamens; otherwise it is very near A. *sanguinea,* already figured at fol. 1171 of the present work. But that species has moreover smaller and more capitate flowers, the teeth of the leaves are finer, the bracteæ and stipulæ much more pubescent, and the calyx far more downy inside.

The petals vary in length; in one of our wild specimens from Mr. Douglas they are more than ¾ths of an inch long.

J. L.

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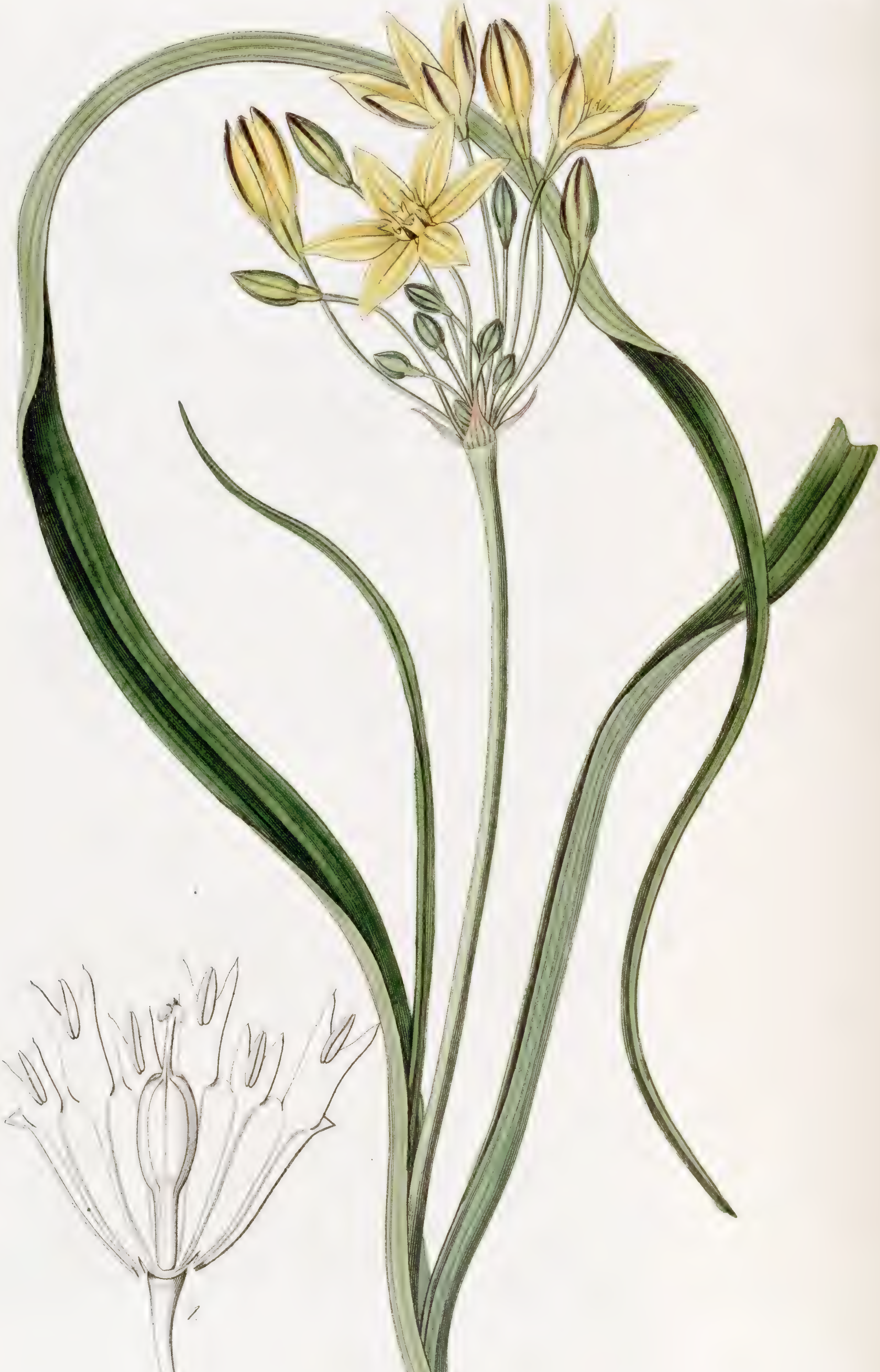
* See fol. 1171.


1

CALLIPRÓRA* lútea.

Yellow Pretty-face.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Asphodeleæ *Juss.* (*Introduction to the natural system of Botany, p.* 273.)

CALLIPRORA.—Perianthium subcampanulatum, cum pedicello continuum, 6-partitum. *Stamina* 6, omnia fertilia, fauce exorta, verticillata, quorum 3 breviora; *filamenta* petaloidea, biloba, *antheris* inter lobos sessilibus. *Squamæ hypogynæ* 0. *Ovarium* stipitatum, 3-angulare, 3-loculare, polyspermum. *Stylus* simplex. *Stigma* trilobum. *Capsula* membranacea, 3-ptera.—— Herba *Allii facie.*

C. lutea.

Folia *lineari-ensiformia, acuminata, canaliculata, lætè viridia, debilia, scapo longiora.* Scapus *erectus, teres.* Flores *umbellati, lutei, laciniis medio extus fusco-purpureis.* Bracteæ spathaceæ *ovatæ, scariosæ, pedicellis multò breviores.* Lobi *filamentorum acuti.*

Received from Mr. Douglas as "a new genus allied to Brodiæa:" it was found in Northern California, but in what situations we are not informed.

It proves to be a hardy, very handsome, bulbous plant, growing freely in a shaded peat border, and flowering in July. Our drawing was made in the Garden of the Horticultural Society.

At figure 1 is a magnified view of the inside of the tube of the flower, cut open so as to shew the origin of the stamens, the form of the petal-like filaments, and the pistillum. From this, its distinguishing characters will be at once perceived. From *Brodiæa* it differs in the want of scales at the base of the pistillum, and in its stamens being all fertile and in the same whorl; from *Leucocoryne* in the same characters ; from *Triteleia* in the filaments being petal-like, and all originating from the orifice of the tube, instead of partly springing from the inside of the tube.

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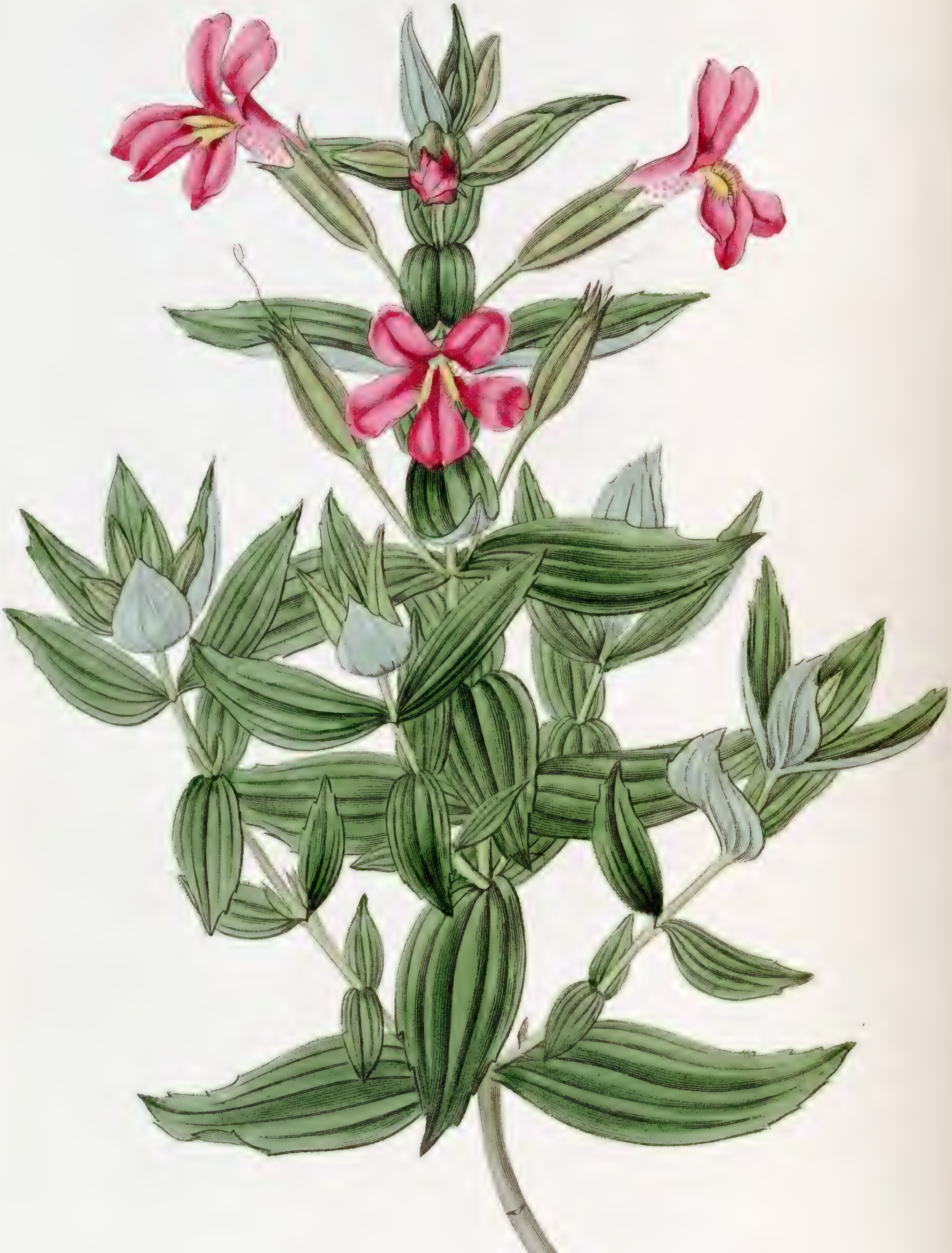
* From καλλίπρωρος, pretty-face; in allusion to its beauty.

It is propagated by offsets, which it produces pretty freely. No seeds have yet been ripened; but it is to be expected that they will be formed when the plants become stronger.

J. L.

1591.



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MÍMULUS* róseus.

Rosy Monkey-flower.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. SCROPHULARINEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 228.)

MIMULUS.—Suprà, vol. 11. *fol.* 874.

M. *roseus;* caule erecto viscido-pubescente, foliis oblongis apice dentatis 5-costatis pilosis, calycis dentibus brevibus subæqualibus, corollæ laciniis oblongis obtusis ciliatis, staminibus tubo brevioribus.

Herba *perennis, pedalis, undique viscido-pubescens, ramosa.* Folia *sessilia, oblonga, 3-5-costata, apice simpliciter dentata.* Pedunculi *axillares, solitarii, foliis floralibus, caulinis simillimis, breviores.* Calyx *viridis, rubescens, apice subæqualis, 5-dentatus, angulatus, tubo corollæ duplò brevior.* Corolla *rosea, bilabiata, ciliata, lobis labiorum subæqualibus, cuneato-oblongis, emarginatis; palato hirsuto, luteo.* Stamina *et* stylus *tubo corollæ breviores.*

This beautiful Monkey-flower was sent by Mr. Douglas from Northern California in 1831. In his letter to the Horticultural Society he spoke of it as extremely rare, and the most striking object he had met with in that country. A very few grains of seed were all that reached England; and from those a small number of plants was obtained, one of which is now represented.

It is found to be rather difficult to manage, or else the right mode of treating it has not yet been tried; for the plants that were kept in the open border during the summer by no means answered the expectations that were entertained of it. Only a very small quantity of seed was saved last year, by means of which it has been preserved. It is, however, a perennial, and may be readily multiplied by cuttings. It flowers in July and August, and we suspect will grow better in a greenhouse than in the open air; just as is the case with the beautiful M. *glutinosus*, from the same country, which we now so seldom see. The plants in the Garden of the Horticultural Society have been potted in loam and leaf-mould, and have been kept under glass: they are succeeding much better this season than the last.

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* See fol. 1330.

J. L.

NICOTIANA* persica.

Shiraz Tobacco.

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PENTANDRIA *MONOGYNIA.*

Nat. ord. Solaneæ *Juss.* (*Introduction to the natural system of Botany, p.* 231.)

NICOTIANA.—Suprà, vol. 10. *fol.* 833.

N. *persica;* foliis radicalibus oblongo-spatulatis caulinis sessilibus semiamplexicaulibus acuminatis, calycibus acutè 5-fidis, tubo corollæ hypocrateriformis gracili clavato, fauce ventricosâ, limbi laciniis ovatis emarginatis subinæqualibus.

Caulis *sesquipedalis, viscido-pubescens, erectus, subramosus.* Folia *radicalia spatulata, oblonga, acuta, basi cordata; caulina sessilia, multò minora, semiamplexicaulia, vix repanda.* Flores *racemosi, extra axillares, noctu leviter odorati, breviùs pedicellati.* Calyx *oblongus, corollâ ad minimum quadruplò brevior; dentibus angustissimis acuminatis.* Corolla *hypocrateriformis; tubo* 2½ *uncias longo, viridi, apice in fauce ventricoso;* limbo *extùs viridi, intùs albo, patente, paululùm obliquo, laciniis ovatis, obtusis, apice canaliculatis, sæpiùs emarginatis.*

We are happy to have the opportunity of laying before our readers a genuine figure and description of the plant which produces the far-famed *Tobacco of Shiraz:* the common Virginian tobacco is also cultivated in Persia; but this it is from which the finest quality is manufactured. Seeds of it were brought from Persia by Sir Henry Willock upon his return from his late residence at the court of Ispahan, and communicated to the Horticultural Society, in whose Garden it blossomed in September and October last.

It is rather a handsome annual, exhaling a faint but pleasant odour in the evening, at which time its flowers are in perfection. In Persia it grows 3 or 4 feet high.

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* Named after Jean Nicot, a French ambassador in Portugal, who first brought tobacco to France, in 1560.

Those who are interested in such matters will find a full account of the method of manufacturing this tobacco, used by the Persians, by Dr. Riach, in the first volume of the New Series of the Horticultural Society's Transactions, p. 205. It appears to require a dark, rich soil, and most abundant watering during all the season of heat.

J. L.

ŒNOTHÉRA* densiflóra.

Close-flowered Evening Primrose.

OCTANDRIA *MONOGYNIA.*

Nat. ord. Onagrariæ *Juss.* (*Introduction to the natural system of Botany, p.* 56.)

ŒNOTHERA.—Suprà, vol. 2. *fol.* 147.

Œ. *densiflora,* annua, incano-tomentosa, foliis lineari-lanceolatis sessilibus acuminatis dentatis, ramulis axillaribus corymbosis in caulem racemosis, ovariis cylindraceis bracteis brevioribus, sepalis subcoloratis intùs glabris, petalis bilobis obtusis, staminibus quatuor sæpè sterilibus fertilibus duplò longioribus.

Planta *annua, undique incano-tomentosa.* Caulis *strictus, in solo pingui corymboso-ramosus.* Ramuli *axillares, superiores foliis vix longiores, apice floriferi corymbosi, caulem racemosum constituentes.* Folia caulina *lineari-lanceolata, sessilia, acuminata, dentata; suprema prope flores integerrima.* Bracteæ *villosæ, foliis conformes, margine sæpè coloratæ, floribus paulò breviores.* Petala *purpurascentia, subrosea.* Stigma *capitatum, 4-lobum.* Stamina 4 *breviora, fertilia,* 4 *longiora, sæpiùs sterilia; omnium* antheræ *breves, retusæ, luteæ.*

A remarkable new species, of which seeds were sent by Mr. Douglas from Northern California in 1831. It flowered last year in the Garden of the Horticultural Society, where our drawing was taken. It proves to be a hardy annual, producing seed in great abundance.

In some respects this is different from the numerous species of Evening Primrose already in cultivation; and at one time we were disposed to think it might even prove a distinct genus. Its peculiar habit arises from each of the axillary buds of the main stem, which usually produce a single flower, being developed into a short branch, that

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[*] See fol. 1142.

itself bears flowers in the axillæ of its leaves. The inequality of length in its stamens is found in many species of genuine Œnothera; and the deep lobing of its petals would not form a character by itself, even if it also were not to be found in the Œnotheras. Upon the whole, we incline to consider it a connecting link between Gaura and Œnothera.

J. L.

1594

[illegible] [illegible] [illegible]

COSTUS* píctus.

Variegated-flowered Costus.

◆

MONANDRIA *MONOGYNIA.*

Nat. ord. Scitamineæ *R. Brown.* (*Introduction to the natural system of Botany, p.* 265.)

COSTUS.—Suprà, vol. 8. *fol.* 633.

C. *pictus;* foliis lanceolatis pilosis, spicâ ovatâ terminali, bracteis apiculatis, labello trilobo; laciniâ intermediâ brevissimâ inciso-dentatâ revolutâ. *D. Don MSS.*

Caulis *erectus, cubitalis, undulato-flexuosus, crassitie digiti minoris.* Folia *brevissimè petiolata, lanceolata, acuminata, suprà pilosa, subtùs glabra, concoloria, spithamæa.* Ochreæ *brevissimæ, membranaceæ, leviter ciliatæ.* Spica *ovata, pauciflora, terminalis, pollicaris.* Bracteæ *subrotundo-ovatæ, mucronulatæ, coriaceæ, virides, undique adpressè imbricatæ.* Perianthii foliola 3 exteriora *lanceolata, acutiuscula, flava, subæqualia.* Labellum *cuneato-oblongum, convolutum, apice dilatatum, trilobum, purpureo aureoque variegatum;* laciniis exterioribus *rotundatis, integerrimis;* intermediâ *inciso-dentatâ, revolutâ, brevissimâ.* Filamentum *lingulatum, petaloideum.* Antheræ loculis *oblongis, parallelis, medio filamenti adnatis.* Stylus *gracilis, compressus, inferne attenuatus, intra loculos antheræ latens.* Stigma *bilabiatum, basi appendice bilobâ suffultum:* labiis *plicatis, bilobis, papilloso-fimbriatis.* D. Don MSS.

"Introduced from Mexico by seeds communicated to Mr. Lambert by M. Deppe, a zealous Prussian Botanist, who has been engaged for several years prosecuting researches in Natural History in that country. The plant flowers more freely, and appears to be less tender, than the other species at present cultivated in the Gardens. The structure of the labellum affords a good character, which will readily distinguish it from all those hitherto described."

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* Under this name were known to the ancients three sorts of aromatic roots, which Dioscorides calls the Indian, Arabian, and Syrian. It is supposed that they were produced by some of the Ginger-tribe, to which the modern Costus belongs.

For the preceding notes and descriptions we are indebted to Mr. Don. The specimen from which the drawing was made was supplied by A. B. Lambert, Esq., from his hothouse at Boyton, in August 1832.

J. L.

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2.

[illegible]

LUPÍNUS* rivuláris.

River Lupine.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ *Juss.* § PAPILIONACEÆ *D. C.* (*Introduction to the natural system of Botany, p.* 87.)

LUPINUS.—Suprà, vol. 13. *fol.* 1096.

L. *rivularis;* perennis, subsericeus, viridis, caule herbaceo, foliolis 7 petioli longitudine subtùs levissimè pubescentibus, racemis verticillatis, bracteis pedicellis subæqualibus, calyce ebracteato: labiis integerrimis superiore basi gibboso, vexillo sessili alis sessilibus parallelo et æquali.

L. rivularis. *Douglas in litt.*

Perennis. Caules *erecti, bi-tripedales, pallidè virides, levissimè pubescentes.* Foliola *sæpius* 7, *angustè obovato-oblonga, obtusiuscula, subcarnosa, apice recurva, subtùs levissimè pubescentia, petioli longitudine.* Stipulæ *parvæ, subfalcatæ, erectæ.* Racemi *verticillati, multiflori, ferè glabri.* Verticilli *subsexflori.* Bracteæ *lineares, acutæ, pedicellis paulò longiores, citissimè deciduæ.* Calyx *ebracteolatus, bilabiatus, labio superiore ovato, basi gibboso, inferiore longiore, cymbiformi, indiviso, obtuso, subcarinato.* Vexillum *sessile, subrotundum, emarginatum, ferè album, roseo paululùm tinctum, basi cæruleo puro maculatum, alarum longitudine;* alæ *sessiles, oblongæ, obtusæ, ventricosæ, cæruleo-violaceæ;* carina *alba, apice purpurea, rostrata, margine ciliata.* Stamina *omninò monadelpha.*

A native of California, whence seeds have been recently sent to the Horticultural Society. It forms a handsome hardy perennial, flowering in great profusion from May to September.

In some respects this is even a better species for Gardens than L. *polyphyllus;* for, if less stately, it is more gay in its appearance, and a longer flowerer. The diversity of colours in the petals no doubt contributes very much to this effect, which is increased by its loose, but not straggling, mode of growth.

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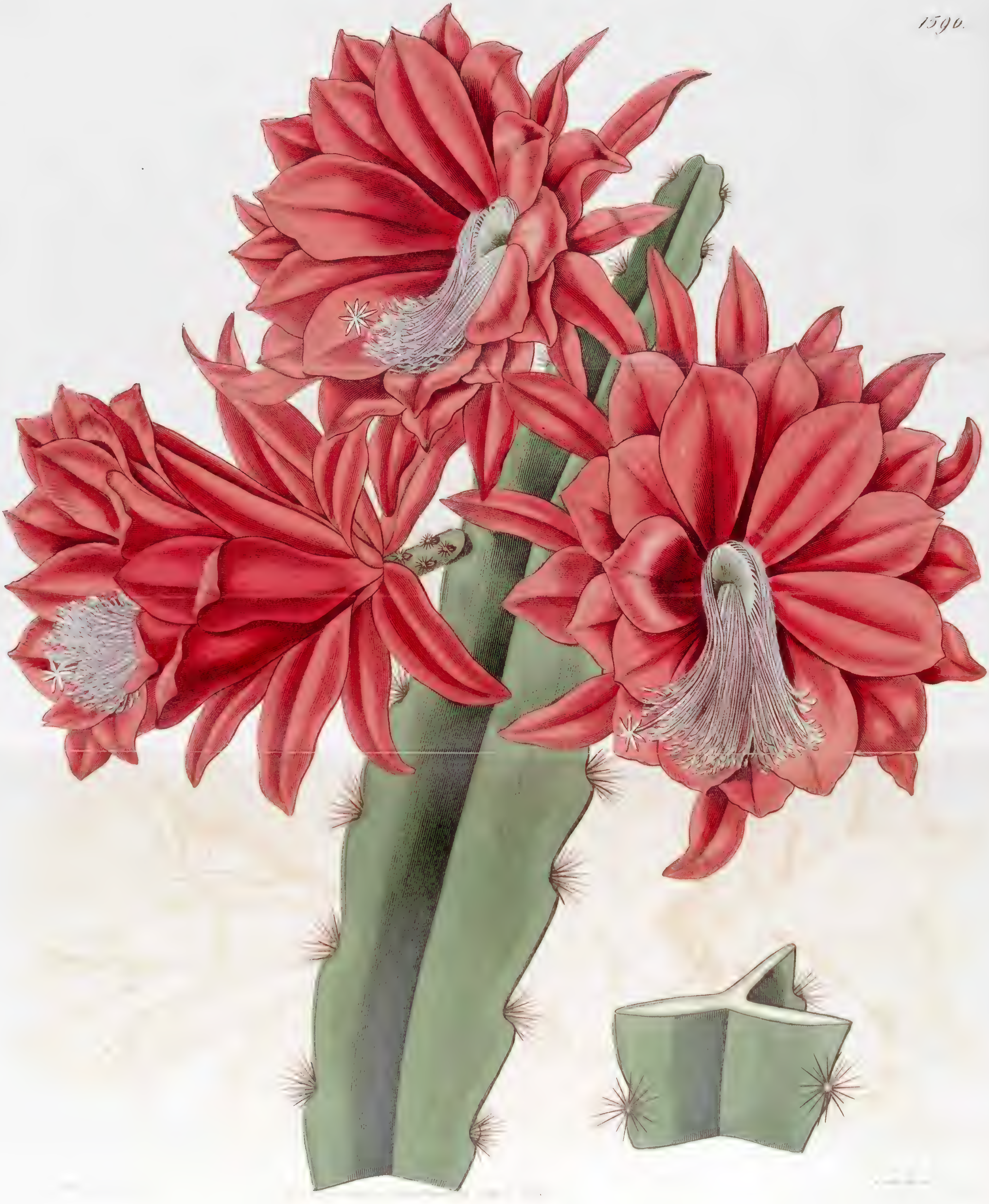
* See fol. 1198.

That this is very distinct from all the Lupines yet in our Gardens, no one who is acquainted with those plants would for a moment doubt. Yet it is most difficult to point out any positive characters by which it may be defined. It varies apparently in the degree of hairiness of its leaves and branches; and seems better distinguished by its pubescence being of the silky kind, by its short bracteæ, and by its ebracteolate calyx, than by any thing else that can be mentioned.

Increases freely by seeds and cuttings.

J. L.

1590.



CÁCTUS* speciosíssimus; *var.* lateritius.

Brick-red hybrid Cactus.

◆

ICOSANDRIA *MONOGYNIA.*

Nat. ord. Cacteæ *Juss.* (*Introduction to the natural system of Botany, p.* 54.)

CACTUS.—Suprà, vol. 2. *fol.* 137.

Garden Variety.

The race of Cacti, approaching Cactus speciosissimus in habit and in the general appearance of their flowers, is now become one of the most striking objects of modern Horticulture. Derived from parents unrivalled in the vegetable world for vigour of constitution, brilliancy of colour, and boundless fecundity, they are now to be met with in every greenhouse and drawing-room, throughout the entire year. At a late meeting of the Horticultural Society, Mr. Snow, the Gardener of Sir Edmund Antrobus, exhibited individuals, each of which was literally covered with blossoms; as many as between two and three hundred being found upon a single plant. This same cultivator has stated, that, by judicious management, a succession of such specimens may with ease be procured during every month in the year.

The variety now represented was raised by Mr. Pressley, Gardener to Walter Boyd, Esq. of Plaistow, in Essex. It approaches C. Jenkinsoni in many respects, but has paler and more brick-red petals. It was exhibited at a meeting of the Horticultural Society on the first day of May, 1832, and was much admired.

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* See fol. 1331.

No one seems to have any difficulty in cultivating plants of this description; nevertheless, it may be well to know that they succeed much better in soil composed of a large proportion of leaf-mould mixed with sand and loam, than in any other compost.

J. L.

1597

1597

ÁSTER* córdifólius.

Heart-leaved Aster.

◆

SYNGENESIA *POLYGAMIA SUPERFLUA.*

Nat. ord. Compositæ *Juss.* (*Introduction to the natural system of Botany, p.* 197.)

§ Corymbiferæ *Juss.* Astereæ *Cassini.*

ASTER.—Suprà, vol. 3. *fol.* 183.

Sect. 3. Genuini. *Periclinium imbricatum v. laxum; foliolis margine magis minusve membranaceis, membranacea parte basin versùs increscente et totam ferè basin, in iis quæ fortiùs sibi incumbunt, occupante. Clinanthium alveolatum, alveolorum marginibus dentatis. Achenia vel glabra, vel sparsim puberula, nunquam pubescentiâ densiori obtecta. Pappus pluriserialis, scaber.*

Heterophylli. *Folia radicalia saltem, vel et inferiora caulis, basi cordata, v. rariùs rotundata, in petiolum distinctum abruptè transeuntia.* Nees infr. cit.

A. *cordifolius;* foliis cordatis serratis petiolatis supra scabris subtus pilosis, caule racemoso-paniculato, ramis paucifoliis laxis, periclinio arcte imbricato. *Nees gen. et sp. Aster. p.* 52.

A. cordifolius. *Linn. sp. pl.* 1229. *Ait. Kew.* 3. 207. *ed. prim. Willd. Sp. Pl.* 3. 2036. *ex parte. Pursh. Fl. Am. sept.* 2. 552. *Nutt. Gen. Am.* 2. 156.

A species sufficiently common in our Gardens, where it is usually confounded with *Aster paniculatus,* from which it is distinguishable by the leaves being much more cordate, and usually covered more or less with harsh hairs, either on both sides or at least on the upper, by its flowering branches having scarcely any true leaves on them, and by the flowers being about one-third smaller. We do not, however, discover the distinction, pointed out by Professor Nees v. Esenbeck, in the involucrum of this being closely, and of the other laxly, imbricated.

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[*] See fol. 1487.

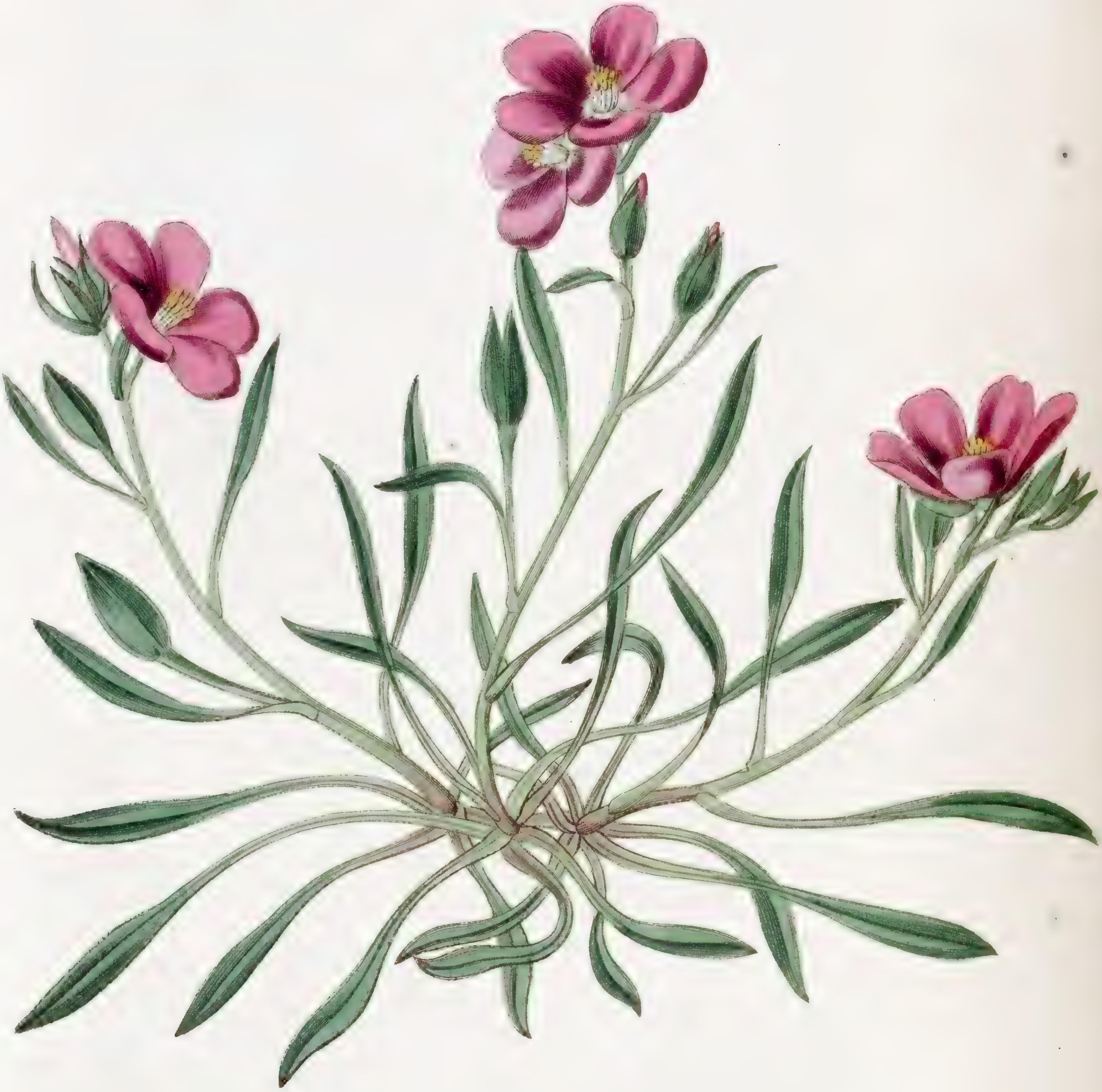
In herbaria this is not unfrequently confounded with *A. corymbosus*, a totally different plant, belonging to the new genus Eurybia.

Apparently a common North American plant: we have it from Canada and from the neighbourhood of New York; and it has been met with as far to the south as Florida.

It flowers in September, and varies in height from a few inches to three feet.

J. L.

1598



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CALANDRÍNIA* speciósa.

Shewy Calandrinia.

POLYANDRIA *MONOGYNIA.*

Nat. ord. PORTULACEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 159.)

CALANDRINIA.—Suprà, vol. 14. *fol.* 1194.

* *Staminibus* 10-15.

C. *speciosa;* glaberrima, diffusa, foliis spatulatis acutis longè in petiolum angustatis, floribus racemosis, pedicellis bracteis brevioribus, petalis calyce longioribus.

Herba *annua, diffusa, carnosa, cæspitem diametro pedalem v. ultrà formans.* Caules *ramosi, leviter angulati, glaberrimi.* Folia *carnosa, lineari-spatulata, longè in petiolum angustata, acuta, supernè sensim angustiora.* Racemi *terminales, sæpè longissimi, multiflori, foliosi, pedicellis clavatis extraaxillaribus, bracteis duplò brevioribus; in plantâ cultâ folium ananthum sæpe florifero alternat.* Sepala 2, *ovata, acuta, subcarnosa, carinata.* Petala 5, *obovata, concava, atrophœnicea, calyce duplò longiora.* Stamina 9-10, *hypogyna, æqualia, conniventia: filamentis nunc inter se coalitis.* Stigma *simplex, costis tribus glandulosis.*

Of all the Purslane tribe this is unquestionably the handsomest. On a hot dry bank or bed, when the sun is shining full upon it, with all its large rich crimson blossoms fully expanded, and reposing upon the soft velvety bed formed by its succulent leaves, it is a most beautiful object, resembling indeed C. *pilosiuscula,* but very far superior to it.

A native of northern California, whence its seeds have been recently sent by Mr. Douglas.

It is a hardy annual, propagated readily by seeds, which it bears in great abundance. It loves dry and exposed situations, and flourishes most in scorching weather;

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* See fol. 1194.

but it should be grown in tolerably rich soil, or if in very poor soil, it should be sown thick: under the former circumstances it forms a patch a foot and more in diameter; in the latter case its branches are not above two or three inches long, as in the wild specimens in the Horticultural Society's possession.

It would doubtless be a valuable plant in the dry and hot climate of the south of Europe, and upon the face of rockwork, where scarcely any other plant would survive.

Flowers in May and June if sown early, or in September and October if later.

J. L.

1599

Miss. Drake. del.

[illegible]

LOÁSA* Plácei.

Mr. Place's Loasa.

POLYADELPHIA *POLYANDRIA*, OR POLYANDRIA *MONOGYNIA*.

Nat. ord. LOASEÆ *Juss.* (*Introduction to the natural system of Botany*, *p.* 58.)

LOASA.—Suprà, vol. 8. *fol.* 667.

L. *Placei;* caule erecto ramoso, foliis oppositis superioribus sessilibus palmato-pinnatifidis: laciniis incisis, calycis laciniis ovato-lanceolatis indivisis, petalorum interiorum appendicibus ovatis sessilibus dimidiato-oblongis cirrhosis, capsulâ hispidissimâ clavatâ.

L. Placei. *Lindl. in Hort. Trans. vol.* 6. *p.* 95.
L. acanthifolia. *Ker in Bot. Reg.* 785.
L. nitida β. *Hooker in Bot. miscell.* 3. 238.
? L. nitida. *Don in Sweet's fl. gar. n. s.* 195.

Our drawing of this plant was taken in Mr. Knight's Nursery in July last. It had been raised from some of Mr. Cuming's seeds. Long since it was in the Garden of the Horticultural Society, where, however, it has been lost for some years, nothing now remaining but L. nitida. If it were not for its abominable stings, this would be a valuable hardy annual; but it is almost necessary that to every plant a board should be affixed bearing the old Scottish motto, "Touch not the cat, but the glove;" extremely unpleasant accidents having arisen from ladies being stung incautiously with it.

Easily propagated by seeds, and flowers from June to August. It is quite hardy during the summer, but should be raised in a hot-bed, and planted out in wet weather.

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* Meaning unknown.

The soil should be very poor, or half the beauty of the blossoms is lost.

Nothing can well be more confused than the synonymy of this species and L. *nitida.* Without pretending to say what the exact plant may have been to which the latter name properly belongs,—an inquiry which is far more curious than interesting or useful,—we are contented with stating, that under the name of L. *nitida* there lie two totally different plants; one with small flowers and a humble stature, the other with large flowers and a size so considerable as to have led to the supposition of its being the L. *acanthifolia*—not however by us, as our friend Dr. Hooker inadvertently states. Mr. Ker indeed supposed it to be the same (in fol. 785), but we were the first to correct this error.

Of these, the one—that which is now figured—is known not only by its greater size, but by its having the appendages of its inner petals sessile, undivided, much larger, and regularly three in number, and by its having flowers at least twice as large as those with which it is compared. The other, which is very likely to be confounded with it, is known by its small flowers, much more dwarf habit, and by its having the appendages of its inner petals pedicellate, jagged, and often only two, the third being either altogether wanting, or existing in the form of a little tendril, or now and then like the two lateral appendages.

This species is nearly related to L. *prostrata* of Dr. Gillies. Its characters and synonyms are as follow:

L. *nitida;* caule erecto ramoso, foliis oppositis superioribus sessilibus palmato-pinnatifidis: laciniis incisis, calycis laciniis ovato-lanceolatis serratis, petalorum interiorum appendicibus angustis ovatis pedicellatis incisis cirrhosis: intermedio sæpiùs obsoleto, capsulâ hispidâ turbinatâ.
L. nitida. *Hooker Exot. fl.* 1. 83.
L. tricolor. *Ker in Bot. Reg. t.* 667.

In the third volume of the *Prodromus,* M. de Candolle separates the L. *tricolor* of the *Bot. Reg.* from L. *nitida,* of which it is a mere synonym; and he quotes to the L. *acanthifolia* of Lamarck the figure in the *Bot. Reg.* 785, which belongs to L. *Placei;* and finally, he omits L. *Placei* itself.

On the other hand Dr. Hooker makes Cuming's No. 663, which is L. *Placei*, a variety of L. *nitida;* and he has another plant from Bridges, with which we are unacquainted, No. 269, as our L. *Placei.*

It is no doubt possible that physiologically L. *nitida* and *Placei* may be the same; but they can only be united when *Rosa spinosissima* and *R. indica*, *Rubus fruticosus* and *R. corylifolius*, *Fragaria vesca* and *F. collina*, and all such species, recognised by every Botanist, are united also: a proposition in which we are far from unwilling to concur; but for which Botanists are not yet prepared.

J. L.

1800

Miss Drake del.

Publish'd by J. Ridgway 169 Piccadilly Aug 1. 18[illegible]

S. Watts sc.

BURTÓNIA* conférta.

Clustered Burtonia.

◆

DECANDRIA *MONOGYNIA.*

Nat. ord. LEGUMINOSÆ *Juss.* (*Introduction to the natural system of Botany, p.* 87.)

BURTONIA R. Br.—Calyx profundè 5-fidus. *Petala* 5, decidua, longitudine subæqualia, 2 carinalia dorso concreta. *Ovarium* dispermum. *Stylus* subulatus, basi dilatatâ. *Stigma* obtusum, imberbe. *Legumen* subrotundum, modicè ventricosum. *Strophiola* seminis nulla.——Suffrutices *Australasici.* Foliola *aut* folia *subulata.* Rami *sæpè* puberuli. Pedicelli *solitarii.* De Cand. prodr. 2. 106.

B. *conferta ;* foliis simplicibus confertissimis lineari-subulatis margine revolutis ramisque glabris. *De Cand. l. c.*

Frutex *glaberrimus,* ramis *ascendentibus, angulatis.* Folia *simplicia, subulata, apicibus subrecurva, basi pallida, marginibus revolutis.* Corymbus *terminalis, multiflorus.* Calyx *viridis, glaucus, levissimè pubescens,* 5-*partitus, laciniis acuminatis subæqualibus, inferiore paulò longiore.* Petala *violacea ;* vexillum *transversum, subreflexum, emarginatum, basi sanguineum ;* alæ *oblongæ, acutæ, dimidiatæ, cum carina parallelæ, basi non auriculatæ ;* petala carinæ *apice sanguinea, connata, et vix nisi vi separanda.* Stamina 10, *subæqualia, declinata ;* antheræ *oblongæ.* Ovarium *obovatum, v. oblongum, dispermum, in stylo glabro ascendente sensim angustatum.*

We believe the figure now given is the first that has appeared of any species of the rare genus Burtonia. It was obtained from a plant collected by Mr. Baxter on the south-west coast of New Holland, which flowered in the Nursery of Mr. Knight in the King's Road, in July last. Another species is said to have been growing at Kew in 1803; but we have never met with it in the Gardens of this country.

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* So called by Dr. Brown, in memory of Mr. David Burton, a diligent collector for the Kew Garden, who died in New Holland, after sending home a considerable number of plants to this country.

It is a pretty greenhouse shrub, forming a compact bush, and increased by cuttings, in the same way as Kennedya and its other kindred.

Sir James Smith seems to us to have judged rightly when he expressed his doubt of there being any important difference in character between this and Gompholobium; but wrongly when he asserted there was no difference in habit. If the Linnean genera Vicia, Pisum, Lathyrus, and Orobus, are to be retained, as they surely must, then must we also assent to Dr. Brown's separation of Burtonia from Gompholobium.

1. Represents the calyx and stamens.

2. A portion of a leaf, shewing the singular manner in which the edges are rolled back: both magnified.

J. L.

NEMÓPHILA* auríta.

Ear-leaved Nemophila.

PENTANDRIA *MONOGYNIA.*

Nat. ord. HYDROPHYLLEÆ *R. Br.* (*Introduction to the natural system of Botany, p.* 244.)

NEMOPHILA.--*Suprà, vol.* 9. *fol.* 740.

N. *aurita;* foliis pinnatifidis basi alatis auriculatis, caule angulato asperrimo, corollâ calyce pentagono duplò longiore.

Annua, prostrata; caulibus *carnosis, fragilibus, angulatis, ad angulos pilis rigidis uncatis exasperatis.* Folia *pinnatifida, scaberrima, basi alata, dilatata in auriculis duabus semiamplexicaulibus; lobis oblongis, acutis, integerrimis v. lobatis, retrorsum flexis.* Ramuli floriferi *sæpiùs, nec semper, oppositifolii,* 2-4-*flori.* Pedunculi *scabri, purpurascentes, corollâ longiores.* Calyx 5-*partitus, laciniis erectis, ovatis, acutis, basibus sagittatis connatis.* Corolla *monopetala, violacea, hypocrateriformis, tubo brevi et limbo concavo; laciniis rotundatis, imbricatis.* Stamina *exserta, antheris nigro-purpureis, ovatis, sagittatis, sub anthesi resupinatis, basi tubi inserta, laciniis alterna, utrinque squamis duabus purpureis recurvis suffulta.* Ovarium *ovatum, apice hispidum, basi annulo prominente circumdatum, uniloculare; placentis* 2, *fungosis, hemisphæricis, intra cavitatem projicientibus, in facies contiguas ovula* 2 *gerentibus.* Stylus *purpureus, basi pubescens, apice bifidus.* Stigmata *simplicissima.* N. B. Ovula immatura *aquâ pressa, materiem nebulosam fundunt è moleculis rotatoriis Brunonianis guttulisque innumeris oleosis minutissimè microscopicis compositam.*

Rather a pretty species, found in California by Mr. David Douglas. It is a hardy, trailing annual, requiring a damp shady border, where it grows and flowers from May to the end of August: but if sown in a place exposed to the sun, it soon withers up and perishes. It is of very recent introduction by the Horticultural Society, and is at present extremely rare; but as it seeds tolerably freely, it will soon be more abundant.

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* From νέμος, a grove, and φίλεω, to delight in; in allusion to the native station of the species of this genus.

To Botanists this is more interesting than to Horticulturists. It belongs to a small natural order, in which the species are generally of rare occurrence, and which have several interesting peculiarities in their structure. Not the least of these is the singular manner in which the seeds are fixed to the pericarpium. In the beginning the ovarium has but one cell, from the bottom of the cavity of which, and from opposite sides, there spring two little plates attached by a small stalk, and bearing two conical, rather distended, obtuse bodies upon their inner face; at this time the plates are formed of very minute and laxly cohering vesicles of cellular tissue. By degrees these plates enlarge, and become succulent and form two fungous placentæ, filling up the whole cavity of the ovarium, while the bodies that they bear, changing to ovula, are jammed in between the two opposing faces of the placentæ. At a later period, when the flower has withered, the placentæ so completely fill the cavity and conceal the ovula, that they may easily be mistaken for half-grown seeds. After this time they generally diminish, till they become, when the seeds are ripe, a mere membrane, which lines the cavity of the capsule.

The ovula themselves, if squeezed in water, emit a cloudy matter, which, when examined microscopically, is found to consist of minute moving particles, mixed with drops of an oily fluid.

J. L.

1602.

Hart del. Pub by J. Ridgway 169 Piccadilly Aug. 1. 1833. Watts

1602

BŒBÉRA* incana.

Upright-branching Bœbera.

SYNGENESIA *SUPERFLUA.*

Nat. ord. Compositæ *Juss.* (*Introduction to the natural system of Botany, p.* 197.)

Trib. VII. Senecionideæ. *Subtrib.* 4. Tagetineæ *Lessing genera compositarum, p.* 236.

BŒBERA W.—*Pappus* biserialis, paleis exterioribus oblongo-ellipticis, æqualibus, brevissimis, integris; interioribus longis, paucioribus, et in pilos fasciculatos divisis.——Folia *alterna et opposita, profundè pinnatifida, pellucido-glandulosa.* Capitula *terminalia, radiata, ramos supernè aphyllos terminant.* Involucrum *biseriale.* Lessing.

B. *incana;* foliis incanis subtùs glaucis profundè pinnatifidis: laciniis linearibus subintegris, involucro exteriore 8-phyllo squamis integerrimis, pappi paleis omnibus in pilos fasciculatos divisis.

Caulis *rigidus, strictus, suffruticosus,* 1½-2-*pedalis, angulatus, pilis duris debilibus incanus; apice racemosus, ramulis suberectis, distanter foliosis, subdichotomis, monocephalis.* Folia *opposita, sessilia, pinnatifida, pilis albis scabra, subtùs glauca, punctis magnis pellucidis notata: laciniis linearibus, acutis, apice lacinula una alterave instructis, inferioribus brevioribus; summa alterna, simplicissima, ovato-linearia, demùm in squamis involucri abeuntia.* Capitula *mediocria, solitaria, erecta.* Involucrum *verticillis* duobus *ordinatum, quorum* exteriori *squamæ* 8, *ovato-lineares, distinctæ, abruptè acutæ, virides, pilosæ, apice patulæ,* interiori *totidem longiores, lutescentes, oblongæ, obtusè cuspidatæ, extùs pilosæ, nunc pellucido-guttatæ, in calathum monophyllum basibus suis connatæ.* Flosculi radii *fœminei, ligulati; ligulâ aureâ, oblongâ, carnosâ, tridentatâ, dente intermedio minore; venis quibusdam simplicibus parallelis in medio, lateralibus venulas ramosas hinc emittentibus;* ovarium *cuneatum, compressum, leviter pilosum;* pappus *è paleis constans pluribus, valdè inæqualibus, acuminatis, in laciniis numerosis filiformibus pinnatifidè divisis;* stylus *glaber, longitudine tubi corollæ;* stigmata *linearia, acuta, minutissimè scabrida.* Flosculi disci *hermaphroditi ovario pappoque radialium;* corolla *tubulosa, colore ligularum, pappi longitudine, apice obtusa, glabra, tubo extùs pubescente;* antheræ *apiculatæ, basi rotundatæ;* stigmata *linearia, apice conica, fimbrillata.* Receptaculum *alveolatum, alveolis dentatis.*

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* So named by Willdenow, after a Russian Botanist of the name of Böber, whose merits are now forgotten.

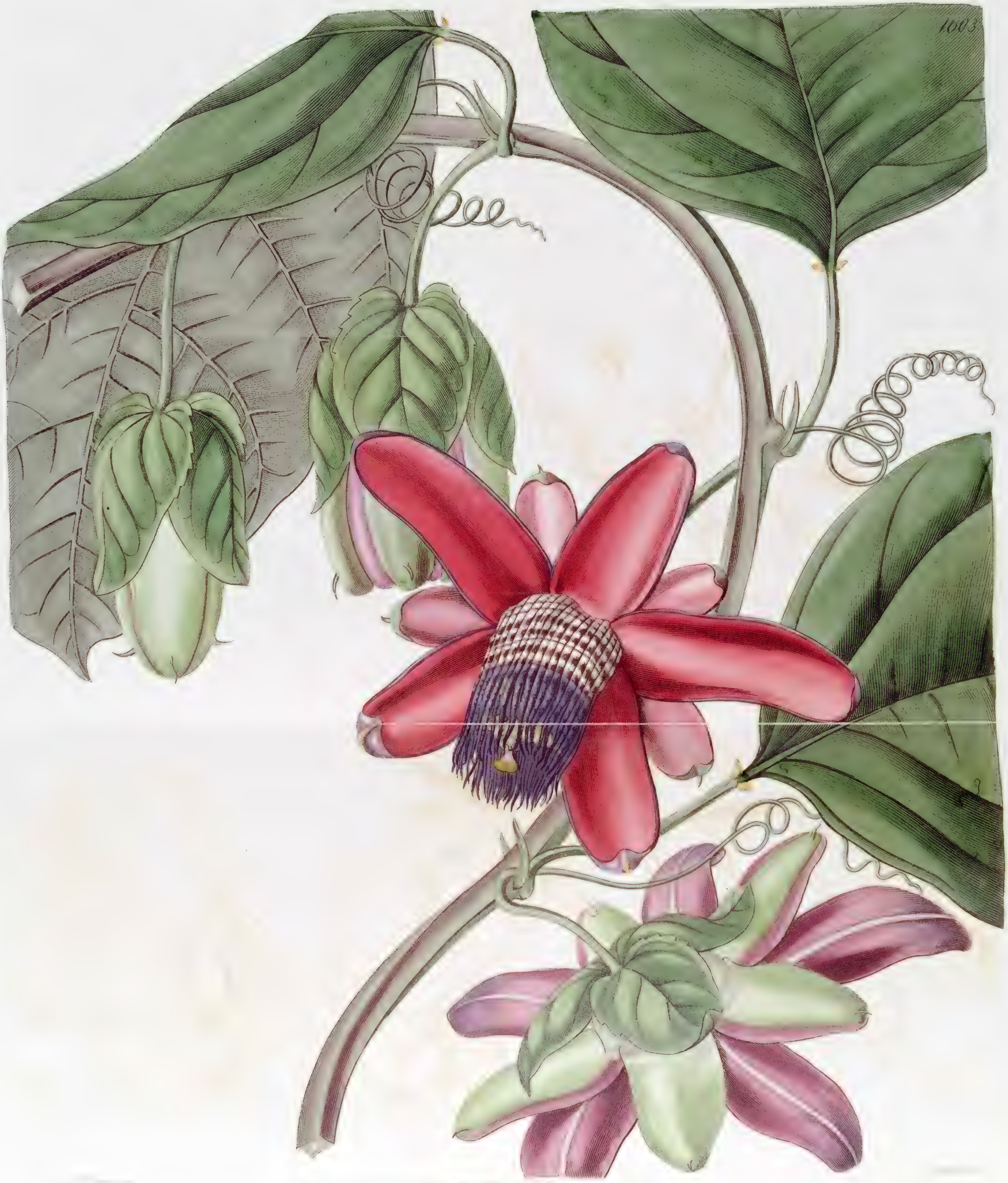
A native of Mexico, whence seeds were obtained some years since by Edward Barnard, Esq. We are ignorant of its locality; nor have we seen any wild specimen.

It is a half-shrubby greenhouse plant, of little beauty, and possessing the peculiar odour of the French marigold, to which it is botanically nearly allied. This odour resides in a number of little transparent bags enclosed within the leaf, which are filled with a very volatile oil. It flowers in November.

This species does not precisely answer to Lessing's definition of Bœbera; but we presume the want of any entire scales on the outside the pappus will hardly suffice for the character of a new genus.

J. L.

1003



PASSIFLÓRA* phœnícea.

Crimson Passion-flower.

◆

MONADELPHIA *PENTANDRIA.*

Nat. ord. Passifloreæ *Juss.* (*Introduction to the natural system of Botany, p.* 148.)

PASSIFLORA.—Suprà, vol. 1. *fol.* 13.

Sect. 6. Granadilla. *De Cand. mem. soc. gen.* 1. *part* 2. *p.* 435. *Prodr.* 3. 327.—Anthactinia. *Bory de St. Vincent am. gen.* 2. 138.

Involucrum sub flore triphyllum, foliolis integris dentatisve non laciniatis. Calyx 10-lobus. Pedicelli 1-flori et cirrhi simplices ex iisdem axillis. *De Cand.*

P. *phœnicea;* foliis glabris oblongis cuspidatis integris, petiolis apice biglandulosis, stipulis lineari-lanceolatis petiolo brevioribus, bracteis cordato-ovatis basi serratis.

A splendid acquisition, for which we are indebted to the Right Honourable the Countess of Bridgewater, in whose stove at Ashridge it flowered in September 1832.

It is nearly allied to P. *alata* and *quadrangularis,* from which it differs in having only two glands at the upper end of the leaf-stalk, and in the form of the leaves of its involucrum. It is also much more brilliantly coloured than either of those well-known species.

The stem is quadrangular, about as thick as a swan's quill, twining, slightly tinged with purple, extending to the length of many feet. The leaves are large, bright green, about 6 inches long, of an oblong figure, rather abruptly pointed; their petiole rather more than an inch and a half long, with two yellow conical glands at the upper end. The stipulæ are very narrow, taper-pointed, one-third the

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[*] See fol. 1339.

length of the leaf-stalk. The flowers are produced singly from the axillæ of the leaves, upon stalks rather shorter than those of the leaves. On the outside of the flowers grow three ovate green bracteal leaves serrated at the base, where they are also a little heart-shaped: these constitute the involucrum, which is shorter than the sepals. The calyx is composed of five sepals, united at their base into a short bell-shaped tube; they are of an oblong figure, very convex, and obtuse at the point, each bearing below the end a little bristle; before they expand, these sepals are slightly imbricated and coloured at the edges. The petals are longer than the sepals, and of the same form; in the inside of a rich deep scarlet, on the outside deep violet, with a white streak along the middle. The crown is about as long as the petals, composed of several rows of tapering processes, which are collected into a cylinder, and are white, with crimson bands on the lower half, a deep rich violet on the upper half; these processes are smaller in the interior rows, but suddenly diminish into mere teeth. The inside of the tube is surrounded by two narrow rims, of which the upper is the broader.

With the fruit we are not acquainted.

J. L.

1604.

[illegible] [illegible] [illegible]

ŒNOTHÉRA* biénnis; *var.* grandiflora.

Large-flowered biennial Evening Primrose.

◆

OCTANDRIA *MONOGYNIA.*

Nat. ord. Onagrariæ *Juss.* (*Introduction to the natural system of Botany, p.* 56.)
ŒNOTHERA.—Suprà, vol. 2. *fol.* 147.

Œ. *biennis;* caule erecto muricato-pubescente tomentoso glabrove, foliis planis lanceolatis v. obovato-lanceolatis dentatis basi angustatis, tubo calycis ovario duplò longiore, capsulis cylindraceis glabriusculis costatis.
α. caule glabriusculo, floribus mediocribus.
Œ. biennis. *Linn. sp. pl.* 492. *De Cand. prodr.* 3. 46.
β. caule glabriusculo, floribus maximis, ovariis magis pubescentibus.
Œ. grandiflora. *Ait. Hort. Kew.* 2. 2. *De Cand. prodr.* 3. 46.
Œ. suaveolens. *Desf. tabl. ed.* 1804. *De Cand. l. c.*
γ. caule aspero muricato-piloso, sæpè villosissimo.
Œ. muricata. *Linn. syst. veg.* 296. *De Cand. prodr.* 1. 47.

We have no doubt that all the synonyms above mentioned are really referable to varieties of the same species. The very great similarity that exists between all of them must be familiar to every body who has ever cultivated them; and if we seek for positive characters by which they may be known, we shall not be able to find such. The only differences that can be pointed out consist in the size of the flowers, and the nature of the hairiness of the stem: the former character is in excess in the beautiful subject of this Plate; in Œ. *muricata* it is diminished; and in the Œ. *biennis* it is in its nearest approach to the wild form: if we add to the varieties Œ. *parviflora,* as we probably should, the petals will in that case be reduced almost to a state of abortion. So with the pubescence: Œ. *biennis* is a little muricated, but scarcely at all downy; a plant called in gardens Œ. *salicifolia* differs in nothing but its stem and leaves being silky with down, and free from the rough points; in Œ. *grandiflora* there is scarcely any hairiness; while in Œ. *muricata* the stem sometimes becomes entirely covered with stiff hairs and red rough points or bristles.

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* See fol. 1142.

The plant now figured is not uncommon in gardens; it is one of the handsomest of all biennials, and as easily managed as the common Œnothera biennis itself. The seeds should be sown at Midsummer; and the plants so obtained should remain in their seed-bed till the next year, when they will flower. It is a bad plan to transplant them, as it prevents their blooming well; and it is unnecessary, for if they are thinned when young, they will require no further care.

J. L.

1605.

[illegible] [illegible] [illegible]

CALANDRÍNIA* arenária.

Sand Calandrinia.

◆

POLYANDRIA *MONOGYNIA.*

Nat. ord. PORTULACEÆ *Juss.* (*Introduction to the natural system of Botany*, p. 159.)

CALANDRINIA.—Suprà, vol. 14. *fol.* 1194.

C. *arenaria;* glauca, caulibus plurimis prostratis glabris foliosis, foliis linearibus, pedunculo communi terminali nudo simplici v. ramoso, racemis corymbosis, pedicellis bracteas ovales membranaceas nervo medio atropurpureo subramoso pictas paullo superantibus, sepalis ovatis membranaceis venis simpliciusculis pictis, seminibus glabris. *Hooker et Arnott bot. misc.* 3. 246.

Annua, prostrata, succulenta, caulibus ramosissimis, purpureo tinctis; ramorum superiorum nodis tumidis. Folia *linearia, obtusa, valde glauca, obtusa, versùs basin angustata, inferiora alterna, superiora verticillata;* stipulæ *minutæ, setaceæ.* Racemi *pedunculati, subsecundi, multiflori, evolutione subcircinato.* Petala *calycis longitudine, rosea, emarginata.*

An inconspicuous annual, very common in sandy places near Valparaiso, whence seeds were brought by Mr. Hugh Cuming. It flowered last year in the Garden of the Horticultural Society, where our drawing was made in July last.

Like many other weedy things, this possesses peculiar beauties if carefully observed. If neither its corolla nor its leaf are curiously formed or richly coloured, the singular markings of the calyx and bracteæ are extremely pretty. These parts are of a uniform bluish green colour, and at first sight seem slightly stained with purple; but upon an attentive examination, it will be seen that the latter colour is principally confined to the veins and their ramifications, spreading from them on each side, and forming a sort of border. Occasionally the colour of one vein runs into that of a parallel one, and so forms transverse bands, producing a speckled appearance. This appearance is still more strongly shewn in the beautiful Calandrinia picta, an alpine species, which looks like a Calandrinia grandiflora, the growth of which had been arrested by the snows and storms of the Andes.

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* See fol. 1598.

A hardy annual, readily increased by the little shining black seeds, which are produced in great abundance.

J. L.

Miss Drake del.

Pub by J. Ridgway 169 Piccadilly Sep 1 1833.

OPÚNTIA* aurantíaca.

Orange-coloured Indian Fig.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. Cacteæ *Juss.* (*Introduction to the natural system of Botany, p.* 54.)

OPUNTIA Tourn.—*Sepala* numerosa ovario adnata foliiformia, summa plana brevia, intima petaliformia obovata rosacea expansa, tubo supra ovarium nullo. *Stamina* plurima, sepalis breviora. *Stylus* cylindricus, basi constrictus. *Stigmata* plurima, erecta, crassa. *Bacca* ovata, umbilicata, tuberculosa, sæpiùs spinifera. *Embryo* subspiralis, teretiusculus. *Cotyledones* semiteretes, germinantes foliaceæ, planæ, crassæ. *Plumula* parva.——Frutices trunco *demùm tereti, juniore ramisque rarissimis cylindricis sæpiùs plus minus compressis articulatis, articulis ovatis aut oblongis fasciculos aculeorum aut setarum ordine quincunciali seu spirali dispositos gerentibus.* Folia *sediformia caducissima sub quoque fasciculo juniore.* Flores *è fasciculis aut marginibus articulorum orti, flavi aut rubentes.* Stamina *tactu subirritabilia.* De Cand. prodr. 3. 471.

§ 2. Divaricatæ *Haw.* Caules humiles, ramis divergentibus, articulis lineari-lanceolatis crassis subteretibus. Aculei fasciculati validi. *D. C.*

O. *aurantiaca;* articulis linearibus v. lineari-lanceolatis divaricatis apice compressis basi teretibus atro-viridibus, aculeis 2-3 elongatis glabris.

Cactus aurantiacus. *Gillies MSS.*

In horto bipedalis, et verosimiliter multò altior evasura. Flores *solitarii, mediocres, petalis luteis obovatis marginibus inflexis, staminibus albis in cylindrum ordinatis petalis breviorem.*

A native of Chile, whence it was originally sent to this country, in 1824, by Mr. Nugent. It has also been brought home by Dr. Gillies, whose unpublished *Cactus aurantiacus* it appears to be. The plant from which our drawing was made, is a branched dark-green bush, consisting of joints 6 or 7 inches long and an inch or three quarters of an inch wide in the broadest part, nearly round at their base, but very perceptibly flattened towards the point. From each of the little tufts of hairs there proceed several spines, of which two or three are considerably larger than the rest. The flowers are of a clear bright yellow colour, about an inch and a half wide when expanded, with a column of white stamens in their centre.

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* So called from having been found wild in the country of the Opuntii, a Grecian people.

The treatment that this requires is the ordinary management of the dry stove. It is a very free grower, and less impatient of cold than many of the order; readily multiplied by its jointed branches.

Every one knows that the spines of the Cacti are always difficult to extract when they have entered the skin. If the spines are magnified, it will be found that this property is owing to their being closely covered from the point downwards with numerous barbs, which have their cutting bases directed towards the base of the spine: in appearance they are very like the arrow-heads, with several rows of barbs, such as are used by certain Indian nations.

The whole substance of this plant is extremely succulent, and the branches can scarcely be said to contain wood. It is, however, obvious, that all the internal parts are arranged upon the same plan as in other Dicotyledonous plants. If a transverse section is made of it, it will be seen that the bark is represented by a thick layer of cells planted perpendicularly in rows upon the epidermis, with their longer axis directed towards the centre; within these cells is a circle, formed by several bundles of woody fibre enclosing spiral vessels; these bundles do not touch each other, but they derive their origin from the buds, and are evidently the commencement of a woody structure. Every thing within these bundles is a mass of loosely cohering oval cells, placed confusedly, and containing countless numbers of starlike crystals. The cuticle is hard to the touch, and is so leathery that it may be easily torn off the subjacent tissue; its toughness is owing to its being composed of small thick-sided cells, in each of which is a firm, flat, lentiform nucleus, which will bear cutting in every direction. What the use is of these nuclei is uncertain; it is probable that they are connected with the power, which the cuticle of these plants possesses, of preventing the evaporation of their internal moisture in times of drought.

An interesting fact relating to the common European Opuntia is mentioned by M. De Candolle. "Among the practical consequences," he observes, "that result from the facility with which Cacti strike from cuttings, there is one which deserves to be noticed, on account of its importance: it is, the manner in which the Opuntia is employed to fertilise the old lavas at the foot of Etna. As soon as a fissure is perceived, a branch or joint of an Opuntia is stuck in; the latter pushes out roots, which are nourished by the rain that collects round them, or by whatever dust or remains of organic matter may have collected into a little soil; these roots, once developed, insinuate themselves into the most minute crevices, expand, and finally break up the lava into mere fragments. Opuntias treated in this manner produce a great deal of fruit, which is sold as a refreshing food throughout all the towns of Sicily."

J. L.

1009

RÚBUS* róridus.

Dewy Bramble.

◆

ICOSANDRIA *POLYGYNIA.*

Nat. ord. Rosaceæ *Juss.* (*Introduction to the natural system of Botany, p.* 81.)
RUBUS L.—*Suprà, vol.* 6. *fol.* 461.

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§. *Foliis simplicibus lobatis sed non pinnatis nec palmatis.*

R. *roridus*; ramis teretibus villosis aculeatis, foliis cordatis lobatis argute duplicato-serratis subtus tomentosis, racemis inferioribus axillaribus erectis petiolo brevioribus, stipulis bracteisque pectinato-multipartitis glandulosis, sepalis multifidis, petalis rotundatis subæqualibus.

Habitus verosimiliter R. moluccani *aliarumque specierum affinium.* Rami *graciles, densè villosi, aculeis paucis sparsis recurvis armati.* Foliorum *lobi utrinque circiter tres, intermedio nullo modo productiore; supra ferè glabri, atro-virides, subtùs velutini, pallidiores, costâ aculeatâ.* Racemi *inferiores, breves, bracteis calycumque lobis glandulis viridibus diaphanis pulchrè conspersi, et hinc quasi rore viridi suffusi.* Petala *alba.*

We are obliged to Mr. Lambert for our specimens of this rare species, which flowered in the Garden at Boyton in the autumn of 1832. It is a native of Madagascar, and strikingly different from all the known species of simple-leaved brambles, in its finely cut stipules and bracteæ, which are covered over with numerous little transparent green glands, giving all the parts that surround the petals an appearance of being sprinkled with green dew.

We presume this requires a greenhouse, and that it may easily be multiplied by layers. It is chiefly an object of botanical interest, there being little in it to attract the mere lover of shewy flowers. Its fruit is unknown.

J. L.

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[*] According to De Théis, the word Rubus is derived from the Celtic *rub*, signifying red.

1608.

[illegible] [illegible] [illegible]

MÁLVA* umbelláta.

Umbel-flowered Mallow.

MONADELPHIA *POLYANDRIA.*

Nat. ord. Malvaceæ *Juss.* (*Introduction to the natural system of Botany, p.* 33.)

MALVA.—Suprà, vol. 4. *fol.* 296.

§ *Sphæroma.* Carpella unilocularia 2-oo-sperma in fructum globulosum coalita. Pedunculi axillares sæpius multiflori. Caulis fruticosus.—An genus proprium? *De Cand. prodr.* 1. 435.

M. *umbellata*, flocculoso-tomentosa; foliis cordatis sub-7-lobatis, pedunculis elongatis sub-5-floris, bracteis calycinis obovatis deciduis, stipulis subulatis, caule fruticoso. *D. Don MSS.*

M. umbellata. *Cav. ic.* 1. *p.* 64. *t.* 95. *Willd. sp. pl.* 3. *p.* 779. *Dec. prodr.* 1. *p.* 435.

M. rosea. *Dec. l. c.* 1. *p.* 435.

Planta *fruticosa, erecta, ramosa, ulnaris et ultrà, pilis stellatis confertissimis flocculoso-tomentosa. Folia longè petiolata, cordata, subseptemlobata, peltati-nervia, suprà plana, demùm glabrata, viridia, subtùs incana, costata, palmaria:* lobis *brevibus, acutis, margine crenatis.* Petioli *teretiusculi, tripollicares.* Stipulæ *breves, erectæ, subulatæ, deciduæ.* Pedunculi *axillares, cylindracei, 3-unciales, plerumque triflori, rariùs 2- v. 5-flori.* Pedicelli *semiunciales, robusti.* Bracteæ calycinæ 3, *obovatæ, concavæ, deciduæ.* Calyx *amplus, campanulatus, coriaceus, 5-lobus:* lobis *semiovatis, acutis, erectis.* Petala *obcordata, pollicaria, coccinea, ungue albido.* Filamentorum columna *alba, petalis brevior.* Antheræ *aureæ.* Stigmata *rosea.* Ovaria *numerosa* (50-60), *in massam sphæroideam agglomerata.* D. Don MSS.

"This curious species has, as Cavanilles has already well remarked, more the look of a *Sida* than of a species of the present genus. It belongs to M. De Candolle's section *Sphæroma*, which, in our opinion, deserves to be regarded as a distinct group. It is an inhabitant of Mexico; and, although cultivated many years ago in the Royal Gardens at Madrid, it had never found its way to our collections until introduced from its native country by Mr. Lambert in 1826. It has hitherto been treated as a hothouse plant, for it is apt to suffer from the damp of a greenhouse in winter, otherwise it appears to endure a considerable degree of cold.

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* See fol. 1362.

" It is rather a coarse-looking plant; but its many elegant scarlet blossoms compensate for its less graceful habit."

For the foregoing account we are obliged to Mr. Don. Our specimens were received in September 1832.

J. L.

1619.

Miss Drake del: Pub by J Ridgway 169 Piccadilly Sept. 1. 1833. J. Watts sc:

CALCEOLÁRIA* crenatiflóra.

Crenate-flowered Calceolaria.

◆

DIANDRIA *MONOGYNIA.*

Nat. ord. Scrophularineæ *Juss.* (*Introduction to the natural system of Botany, p.* 228.)

CALCEOLARIA.—Suprà, vol. 9. *fol.* 723.

C. *crenatiflora;* herbacea, foliis ovatis sublobatis dentatis inferioribus præcipuè petiolatis utrinque cauleque pubescentibus subobliquis, floribus corymbosis, labio superiore minimo inferiore amplo maculato crenato, laciniis calycinis latè ovatis nervosis. *Hooker in Bot. mag.* 3255.
C. crenatiflora. *Cavan. ic.* 5. 28. *t.* 446. *Graham in Edinb. phil. journ. June* 1833.
C. anomala. *Pers. synops.* 1. 16.
C. pendula. *Brit. fl. gard.* 1. 155.
C. suberecta. *Hort.*

One of the handsomest of the Chilian Calceolarias, collected in the Island of Chiloe both by Mr. James Anderson and Mr. Cuming; from the latter of whom we have a specimen numbered 52.

It is an herbaceous plant, growing from a foot to two feet high, and of a remarkably dark rich green in the foliage. The root-leaves are stalked, broadly ovate, blunt, crenated, and slightly hairy. The stem has two or three pairs of opposite, smaller, sessile leaves, which are nearly entire, and either obtuse or taper-pointed. The flowers grow in large loose corymbs, and have slender, rather long, and slightly hairy ramifications, which are neither hoary nor clammy; the calyxes are green and hairy; the corollas very large, bright yellow spotted with crimson, the upper lip small and emarginate, the lower bagged, with about five plaits on its upper surface, which give the outline a crenated appearance. The stamens have very large anthers, and are about half the length of the upper lip.

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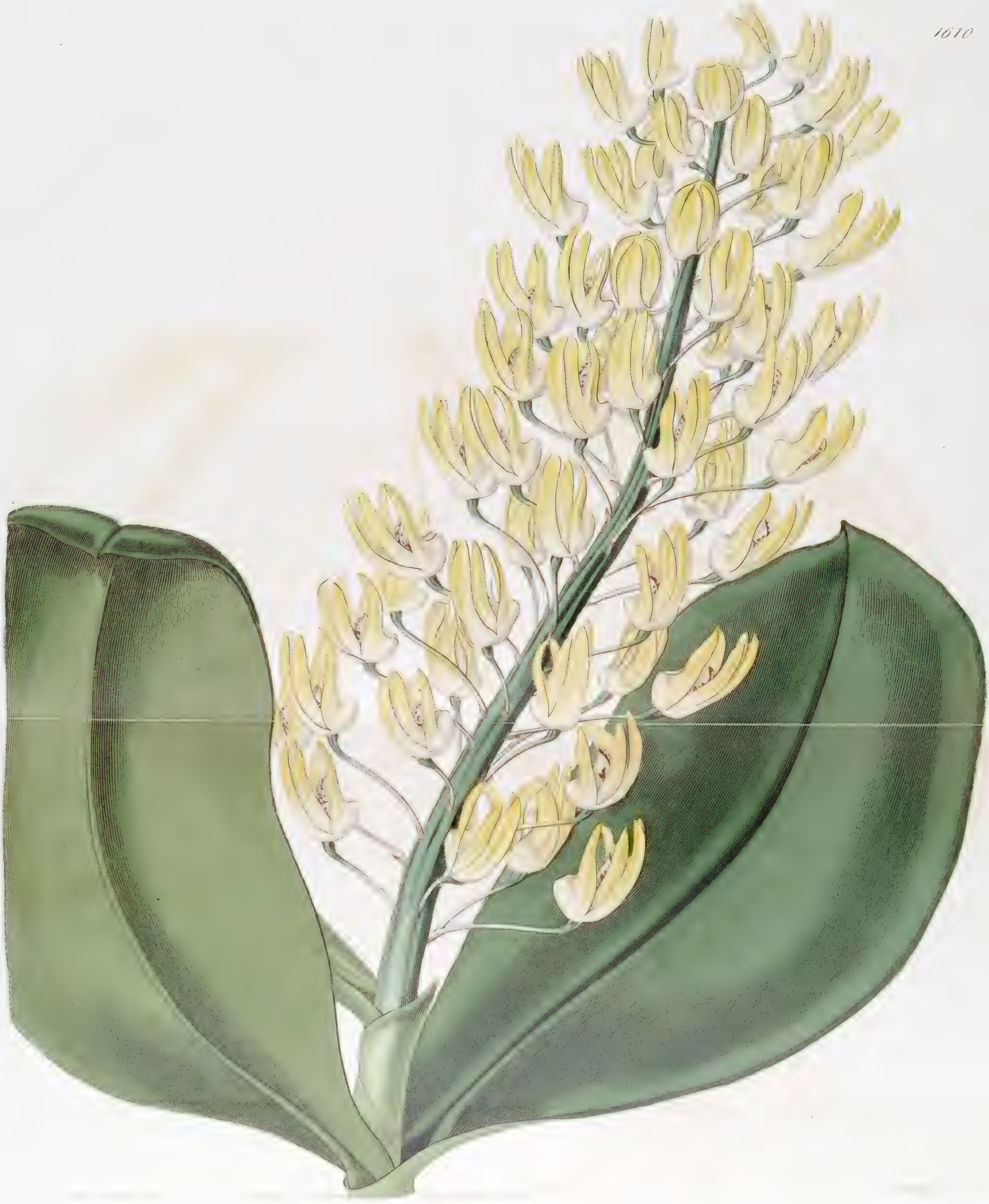
* See fol. 1214.

It is as hardy a species as any of the genus, and admirably adapted for employing as the male parent of a race of hybrids. Like all the other species, plenty of air and a cool situation, when in the growing state, are absolutely indispensable to it; for in no way do the whole of the herbaceous kinds thrive so well near London as kept in pots in a cool shady frame.

Increased by seeds and by division of the crown of the root. Our drawing was taken in Mr. Lowe's Nursery in May last.

J. L.



DENDRÓBIUM* speciósum.

Shewy Dendrobium.

◆

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ *Juss.* § Malaxideæ *Lindl.* (*Introduction to the natural system of Botany, p.* 262.)
DENDROBIUM.—Suprà, vol. 7. *fol.* 548.

D. *speciosum;* caulibus erectis apice 2-3-phyllis, foliis ovali-oblongis integerrimis racemo terminali multifloro brevioribus, perianthii foliolis angusto-oblongis, labello infra divisuram carinâ unicâ, lobo intermedio latiore quàm longo ecarinato. *R. Br. prodr.* 332. *Lindl. gen. et sp. Orch.* 87. *Hooker Bot. mag.* 3074. *Bauer's illustrations of Orchid. tab. VI. genera.*

Scarcely any plant is more common than this in collections near London; so readily is it cultivated, that it rarely happens that a Gardener does not succeed in keeping it healthy, and multiplying it abundantly: tied to a stick or planted in earth, preserved in a greenhouse or stimulated in a stove, in all cases it preserves the deep green of its leaves and its aspect of robustness. But it seldom flowers. This is owing to the weakness of the specimens, compared with what is natural to them in their own country: it is not enough to keep their leaves green and plump, it is also necessary that the plants should grow rapidly, and to at least twice the size we are accustomed to see them; then and then only will they yield their stately and beautiful racemes of pale-yellow wax-like blossoms.

The specimen from which the accompanying drawing was taken, was one of five produced upon the same cluster of stems, in the garden of the Rev. Mr. Huntly, of Kimbolton: each stem was nine inches long, stout in proportion, and emitted from its base many scores of long white healthy roots, which extended to the distance of near a foot all round it. It flowered in March of the present year.

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* See fol. 1239.

The method pursued in its cultivation was merely that repeatedly recommended in this work, namely, to keep such plants growing in a warm damp atmosphere, in pots extremely well drained; and not exposed to the direct light of the sun. Under such treatment the stems soon begin to throw out a number of little green-tipped delicate roots, which gradually turn white and lengthen, adhering to the surface of garden-pots, or any thing they may be near. If no accident befalls such roots, nothing is likely to interfere with the future progress of the plant; but slugs and woodlice are great enemies of them, feeding upon the youngest and tenderest tips; and it is indispensable that these animals should be completely kept away; for a root of this sort once injured rarely recovers.

J. L.

1611.

[illegible] del. [illegible] [illegible]

CALCEOLÁRIA* viscosíssima.

Clammy Calceolaria.

DIANDRIA *MONOGYNIA.*

Nat. ord. SCROPHULARINEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 228.)

CALCEOLARIA.—Suprà, vol. 9. *fol.* 723.

C. *viscosissima;* suffruticosa, viscido-glandulosa, foliis caulinis oblongis rugosis sessilibus cordatis v. amplexicaulibus v. connatis crenatis v. irregulariter denticulatis, paniculis confertis corymbosis, corollæ labiis subæqualibus.
C. integrifolia, γ viscosissima. *Hooker in Bot. mag.* 3214.
C. rugosa macrophylla. *Hort.*
C. rugosa latifolia. *Herbert in litteris.*

Caulis *sublignosus,* 2-3-*pedalis, viridissimus, pilis viscidis densè obtectus.* Folia *viridissima, valdè rugosa, viscida, obtusa, nunc subcordata, nunc amplexicaulia, nunc omnino connata, ambitu crenato v. inæqualiter denticulato.* Paniculæ *terminales et axillares, confertæ, viscidissimæ, multifloræ.* Corollæ *aureæ v. flavæ.* Stamina *styli ferè longitudine.*

A beautiful shrubby species, with the habit of C. integrifolia, except that it has a far more herbaceous character. It is covered all over with viscid hairs, so densely, that it is difficult to separate it from any thing that is pressed upon it.

It grows about 3 feet high, and produces ample crops of flowers all the summer long. We first received it from the Honourable and Rev. William Herbert in the autumn of 1832; and it is from specimens subsequently communicated by that gentleman that our drawing was taken. Mr. Lowe also sent it from his Nursery, at Clapton, in May of the present year; and we have seen it in the collection of the Horticultural Society, under the name of C. *rugosa macrophylla*.

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* See fol. 1214.

This appears to be subject to vary in the degree of serrature of its leaves, in their thickness, greater or less hairiness, and in the colour of the flowers, which are in some specimens bright yellow, in others very pale; the base of the stem-leaves is also different in different individuals, in some being absolutely connate, in others deeply cordate, in others eared, and even in some cases but slightly cordate. Nevertheless we consider this and its deviations an undoubted species, distinguished essentially by its sessile auriculate stem-leaves, viscid branches, and nearly equal lips of the corollæ. We presume it is the No. 529 of Mr. Cuming's collection, and perhaps also the 281 of Mathews, and 88 of Mr. Bridges, who says his plant is very common near Valparaiso, where it is called Arguenita.

A frame plant, easily multiplied by cuttings.

J. L.

1612.

LOBÉLIA* Túpa.

The Tupa-Poison Plant.

SYNGENESIA *MONOGAMIA.*

Nat. ord. LOBELIACEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 187.)
LOBELIA.--Suprà, vol. 1. *fol.* 60.

L. *Tupa ;* tomentosa, caule erecto angulato foliisque oblongis decurrentibus rugosis incanis, racemo terminali folioso multifloro, calyce subrotundo 5-dentato velutino, corollâ tomentosâ fissâ altè 5-partitâ : laciniis parallelis falcatis secundis obtusis.
L. Tupa. *Linn. sp. pl.* 1318. *Willd. sp. pl.* 938. *Römer et Schultes,* 5. 38. *Bot. mag.*
Rapuntium spicatum vulgò Tupa. *Feuillée, journal des observations, &c.* 2. 739. *t.* 29.

Of this plant we read as follows in the curious Journal of Father Feuillée, who visited the west coast of South America between the years 1707 and 1712.

" All this plant is a most ready poison; its root yieldeth a deadly milk, as also doth its stem; the odour of its flowers produceth cruel sickness. When one handleth them, care must be had not to bruise them between the fingers; for if one thereafter rubbeth his eyes, some of the milk having touched them, a man will surely lose his sight, as hath been remarked by experience. * * * I found this plant on the mountains of the kingdom of Chily, as high as 37 degrees of south latitude."

We have no evidence of the accuracy or inaccuracy of this statement; but we know that all Lobelias are dangerous inflammatory poisons, and therefore this is likely to participate in similar properties.

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* See fol. 1200.

At the present day it is found in the same country as is mentioned by Father Feuillée. We have it from Conception, where it was gathered by Cuming, from Valparaiso from Macrae, and from the classical island of Juan Fernandez, where it was gathered by Douglas.

In the gardens it is an herbaceous plant, growing from 3 to 6 feet high, producing a number of unbranched erect stems, covered with broad gray leaves, and terminated by a raceme of dull, but rich purple flowers. It is not hardy enough to bear our winters without protection, because of the wet; but keep it dry, and it will require no other care, for it grows in any soil or situation. In Mr. Lowe's Nursery, where our drawing was taken, it occupies a long bed at the back of one of the stoves, where it increases amazingly.

When in flower, in August and September, it is a very handsome species.

J. L.

[illegible] [illegible] Watts sc.

1613

XEROPHYLLUM* setifólium.

Tough-leaved Xerophyllum.

HEXANDRIA *MONOGYNIA.*

Nat. ord. MELANTHACEÆ *R. Br.* (*Introduction to the natural system of Botany, p.* 272.)

XEROPHYLLUM Richard. — *Calyx* hexapetalopartita, subrotata, petalis eglandulosis: alternis paulò minoribus. *Filamenta* erecta, basibus inter se et cum germine contigua. *Antheræ* subrotundæ, utrinque marginatæ. *Stigmata* 3, angustè ligulata, canaliculata, supernè revoluta. *Capsula* subtestacea, ferè globosa, quasi tricocca, apice rimâ triplici externè dehiscens, 3-locularis: loculis 2-spermis. *Semina* basi loculorum adnata, erecta, oblonga, compressa. *Mich.*

X. *setifolium:* foliis caulinis subulato-setaceis, racemo thyrsoideo, bracteis setaceis pedicellis brevioribus, filamentis basi dilatatis petala ovato-oblonga æquantibus. *Römer et Schultes,* 7. 1567.
X. setifolium. *Michaux fl. boreali-Amer.* 1. 210. *Torrey flora.* 1. 370.
Helonias asphodeloides. *Linn. sp. pl.* 485.
Xerophyllum tenax. *Nutt. gen.* 1. 235. *R. et S. l. c.*
Helonias tenax. *Pursh fl. Am. sept.* 1. 243. *t.* 9.

A beautiful herbaceous plant, whether we regard the tufts of bright green, curved, neat-looking leaves, or the tall spikes of white and violet flowers, which it throws up in June and July. In a peat border it grows vigorously, and will thrive in the most exposed situations and driest seasons. A division of the crown of the roots is the usual mode of propagating it, unless it ripens seeds, which sometimes happens.

It grows wild in various parts of North America, especially in the sterile tracts called Pine-barrens, both on the east and west sides of the continent. The natives, inhabiting the highlands of the Rocky Mountains, where it is abundant, weave their water-tight baskets out of its tenacious leaves.

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* So called from ξηρὸς, dry, and φύλλον, a leaf; in allusion to the texture of the foliage.

Since the time of Pursh the plant used for this purpose, and the common American kind, have been considered different; but we are unable to detect the slightest mark by which they may be separated. That now figured was raised in the Garden of the Horticultural Society from seed collected on the north-west coast of America by Mr. Douglas; and it seems identical with the Helonias asphodeloides of the Gardens and of Botanists.

J. L.

1646

[illegible] [illegible] [illegible]

ÁSTER* éminens.

Curve-leaved Aster.

◆

SYNGENESIA *SUPERFLUA.*

Nat. ord. COMPOSITÆ *Juss.* (*Introduction to the natural system of Botany, p.* 197.)

ASTER.—Suprà, vol. 3. *fol.* 183.

A. *eminens;* foliis lanceolato-acuminatis subamplectentibus inferioribus in medio argutè serratis supra in ambitu latè scabris, caule paniculato patulo, ramis apice simpliciter corymbosis, periclinii turbinati subæqualis foliolis lineari-lanceolatis patulis. *Nees gen. ast.* 87.
A. junceus. *Hort. Kew.* 3. 204.
A. longifolius. *Lam. enc. meth.* 1. 306. *n.* 33.
A. eminens. *Willd. en. hort. Berol.* 2. 886.
A. mutabilis. *Hort. Kew.* 3. 205.
A. lævigatus. *Pursh. fl. am.* 2. 553.
A. virgineus. *Nees synops. ast. p.* 22.

A very common North American Aster, found in marshes and by the sides of ditches, from New York to Carolina, according to Pursh; and also in Canada, as we learn from Dr. Hooker's Herbarium.

Scarcely any species of this most variable genus is less constant in its appearance than the present; and it may be said that the state now represented is ill calculated to give a correct notion of it. We are, however, disposed to consider this the most extreme and genuine form, from which all others are to be considered deviations. In a great many cases the leaves are wider and serrated; in others those that subtend the flowers are shorter; sometimes the stem is hairy, sometimes smooth; in many the involucrum is less squarrose; and occasionally the whole plant assumes the appearance of A. *laxus*.

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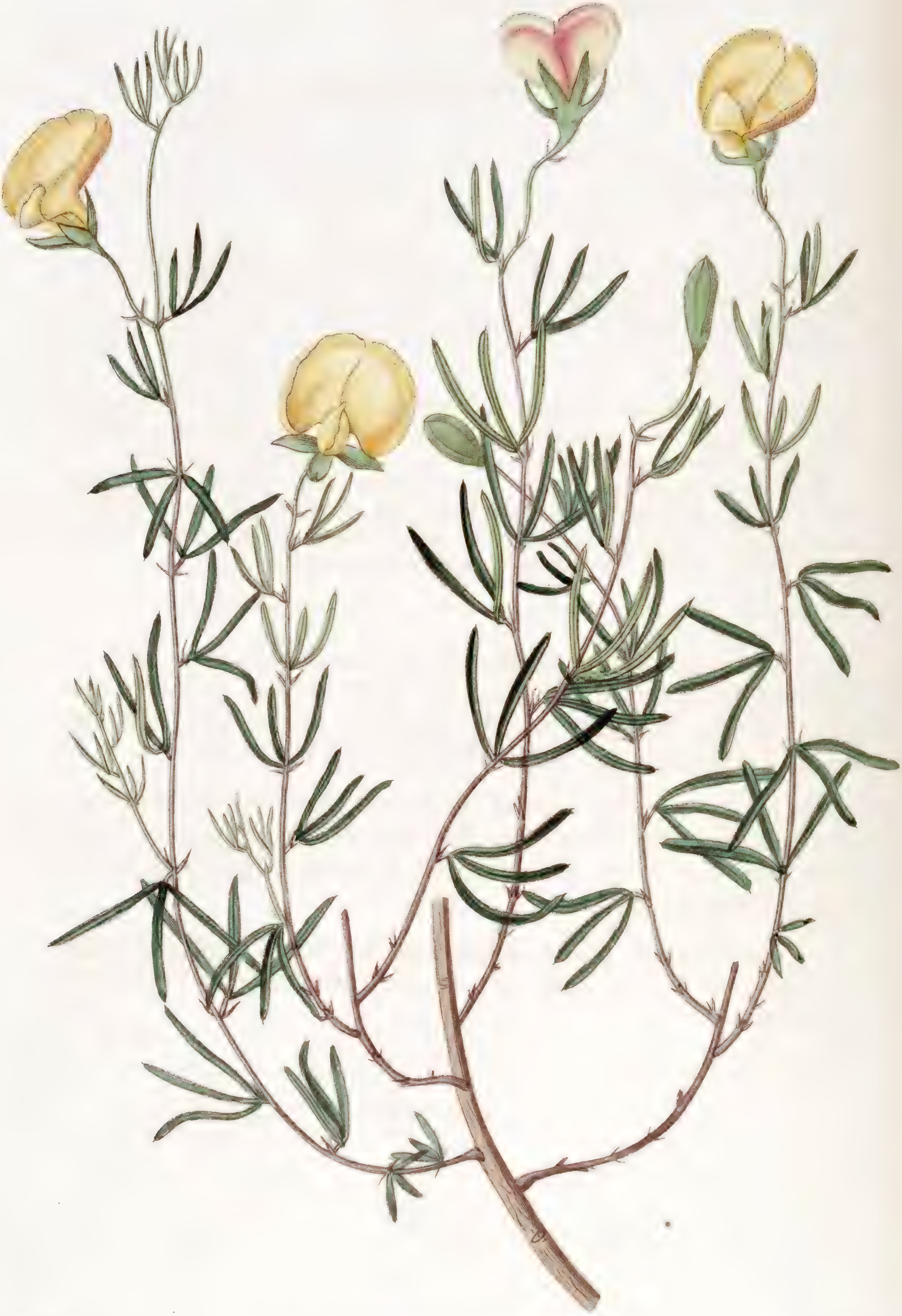
* See fol. 1487.

A. *eminens* may be certainly known from all the other species in the same section by its involucral leaves not only being leafy, and more or less squarrose, but spreading very much at the time the plant is in flower; and also by the taper-pointed figure of the floral leaves. A. *squarrosulus*, a very nearly allied plant, has shorter involucral scales, which contract about the florets, and much smaller flower-heads.

This plant is a hardy perennial, growing often as high as 5 or 6 feet, and bearing in the latter end of September a profusion of bright lilac flowers. It is often called *salicifolius* in the gardens.

J. L.

1615.



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GOMPHOLÓBIUM* ténue.

Delicate Gompholobium.

DECANDRIA *MONOGYNIA.*

Nat. ord. Leguminosæ *Juss.* § Papilionaceæ. (*Introduction to the natural system of Botany, p.* 87.)

GOMPHOLOBIUM.—Suprà, vol. 6. *fol.* 484.

G. *tenue;* glaberrimum, caulibus filiformibus lævibus, foliolis 3 linearibus angustissimis margine revolutis mucronulatis, floribus solitariis pedunculatis, vexillo emarginato carina imberbi duplò longiore.

Suffrutex *glaberrimus, debilis, ramis filiformibus angulatis lævibus unifloris.* Folia *3-foliolata, foliolis linearibus, venosis, margine revolutis, mucronulatis; stipulis subulatis petioli longitudine.* Calyx *viridis, laciniis subæqualibus.* Petala *lutea, vexillo extus purpurascente.*

A little under-shrub, found on the south-west of New Holland by Mr. William Baxter, from whose seeds it was raised in the Nursery of Mr. Knight, of the King's Road, where it flowered in August last for the first time.

It is nearly related to G. *virgatum,* from which it differs in the proportion borne by the standard to the keel; and also to G. *venulosum,* from which it is distinguished by its very narrow leaves.

A greenhouse plant, increased by seeds and cuttings. It requires to be kept in an extremely well-ventilated situation.

J. L.

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* See fol. 1468.

1616.

[illegible]

1616

GONGÓRA* maculáta.

Spotted Gongóra.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 262.)

GONGORA Fl. *Peruv.*—*Perianthium* explanatum. *Sepala* lateralia libera divaricata, supremum cum dorso columnæ connatum. *Petala* minora, columnæ medio adnata. *Labellum* cum basi columnæ continuum, liberum, unguiculatum, hypochilio explanato utrinque cornuto, epichilio verticali ancipiti (faciebus oppositis complicatis connatis) acuminato. *Columna* longissima, arcuata, clavata, marginata. *Anthera* subbilocularis. *Pollinia* 2, linearia, in caudiculam cuneatam sessilia.——Herbæ *epiphytæ, pseudobulbosæ.* Folia *plicata.* Racemi *longissimi, flexuosi, multiflori.* Lindl. gen. et sp. Orchid. *pars III. p.* 158.

G. *maculata;* foliis 5-plicatis obovato-oblongis basi valdè angustatis, sepalis lateralibus è latâ basi angustatis, hypochilio oblongo subtùs convexo basi obtusè bicorni apice truncato angulis acutis in cirrhis duobus producto, epichilio acuminato.

Epiphyta, *acaulis,* pseudobulbis *ovatis angulatis.* Folia *pedem et ultra longa,* 4 *pollices lata, læte viridia.* Racemi *radicales, penduli, laxissimi,* 2½ *pedes longi.* Scapus *purpureus, glaber, squamis quibusdam parvis longè distantibus vaginatus.* Pedicelli *divaricati, cum ovario gracili* 2 *poll. longi, purpurei.* Sepala *vitellina, purpureo interruptè fasciata;* supremum *lineari-lanceolatum, erectum, dorso columnæ accretum;* lateralia *multò majora, reflexa, marginibus revolutis, à latâ basi angustata, et à basi supremi longo intervallo sejuncta.* Petala *pallidè purpurea, obscurè maculata, lineari-lanceolata, acuminata, antrorsùm arcuata, sepalo supremo minora.* Columna *viridis, obscurè maculata, semiteres, clavata, ferè sigmoidea, tali modo arcuata ut in ovarium obliquissimè recumbit, et in pedem productissimum sepala gerit utrinque labellumque in medio.* Clinandrium *valdè declive, ut in Cirrhæa.* Labellum *compressum, colore sepalorum, hypochilio quàm epichilium subsagittatum duplò minore.*

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* Named by the authors of the *Flora Peruviana* in honour of D. Antonio Caballero y Gongora, Bishop of Cordova, who, while Archbishop of Santa Fé and Viceroy of New Granada, was a zealous patron of the celebrated Mutis, and an ardent promoter of all branches of Natural History.

Many a strange figure has been met with among Orchideous plants, and numerous are the animal forms which Botanists have fancied they could recognise among their singular flowers. Some are said to bear little men and women swinging below their canopy of petals; others have appeared to carry the likeness of lizards, frogs, and other reptiles, crouching among their leaves; while some have been compared to Oberons and Titanias hanging by their tiny arms from the bells, where they have concealed themselves. To what the flowers of the plant now figured can be likened, we profess not to know, unless to some of the fantastic animals of heraldry; a griffin *segreant,* as they term it, would do as well as any other for a comparison.

This most curious species was sent us by Richard Harrison, Esq., from his Garden at Liverpool: it was originally introduced from Demerara, in 1832, by Mr. Thomas Moss, of Otterspool. It flowered in the hothouse in May; its bunches of flowers were two feet and a half long, and hung down most gracefully from the pot in which the plant was suspended; of this our diminished figure in the background is intended to be a representation.

A few years ago the genus Gongora was so little known, that some doubts were even entertained of its existence. Our Gardens now possess two species, neither of which is the kind originally figured in the *Flora Peruviana.*

J. L.

1617.

ERYTHRÍNA* poiānthes; *var.* subinermis.

Thornless naked-flowering Coral-tree.

DIADELPHIA *DECANDRIA.*

Nat. ord. Leguminosæ *Juss.* (*Introduction to the natural system of Botany, p.* 86.)

ERYTHRINA.—Suprà, vol. 4. *fol.* 313.

E. *poianthes.* Suprà, fol. 1246.
β subinermis; foliis floribusque contemporaneis, caule subinermi.
E. poianthes. *Lowe in bot. mag.* 3234?

We can scarcely doubt that the plant from which the accompanying figure was taken, and that illustrated by Mr. Lowe in the Botanical Magazine, are the same; neither can we hesitate to consider both of them materially different from the species figured at fol. 1246 of this work.

In the latter the flowers appear without the leaves, and the stems are extremely prickly: in the kind now represented we find the flowers and leaves accompanying each other, and the stem scarcely producing any prickles. It is true that Mr. Lowe describes his plant as producing the flowers before the leaves; but then he figures the young shoots without prickles, in which we conceive the material difference to consist.

According to Mr. Lowe this plant is a great ornament of the gardens of Madeira, where it is cultivated, and where it becomes a low tree, 15 or 20 feet high, with a trunk sometimes 4 feet in circumference, and so soft that its wood resembles cork; its branches are said to strike root with great readiness; so that a piece, however rudely broken off, will grow when stuck into the ground.

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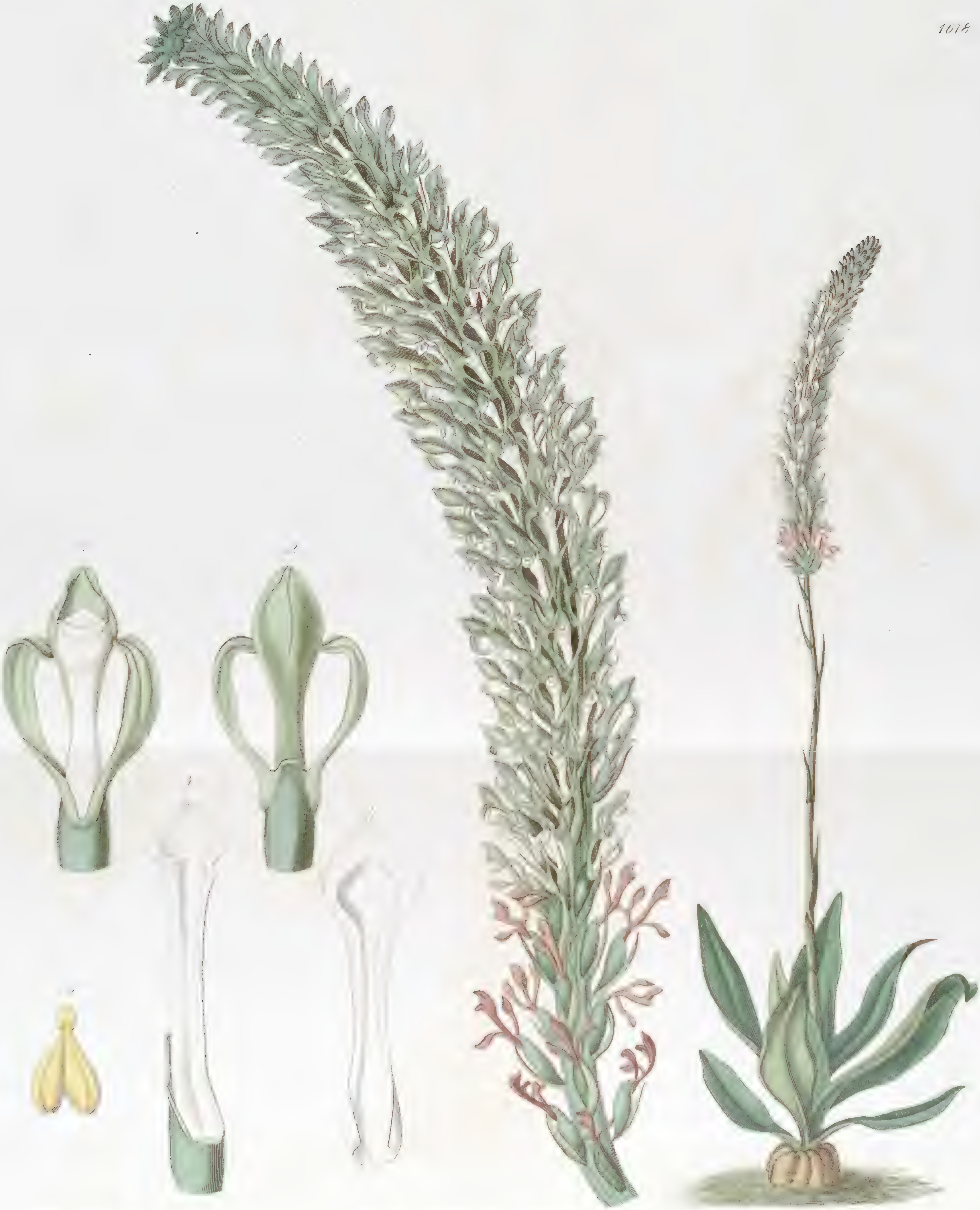
* See fol. 1246.

Our drawing was made from a beautiful specimen growing in the stove of his Grace the Duke of Northumberland at Sion; it was 6 feet high, had a richly streaked bark, and was crowned by a thick cluster of leaves and flowers. We regret to learn that the splendid collection at Sion is no longer under the care of Mr. Forrest, who has retired from its superintendence, to practise the profession of a Landscape Gardener, for which his skill, experience, and good taste, render him eminently qualified.

J. L.

1018



1618

SAUROGLÓSSUM* elátum.

Tall Lizard's Tongue.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. § Neottieæ *Lindl.* (*Introduction to the natural system of Botany, p.* 262.)

SAUROGLOSSUM.—*Perianthium* connivens, sepalis lateralibus linearibus, arcuatim patentibus, basi in ovarium decurrentibus. *Labellum* anticum, lineare, canaliculatum, ecallosum, basi dilatatum. *Columna* elongata, semiteres, basi producta, apice subspatulata; clinandrio declivi immarginato, rostello ovato. *Pollinia* 2, biloba, caudiculâ brevissimâ.—Herbæ *terrestres* (Americæ æquinoctialis) foliis *radicalibus*, floribus *racemosis herbaceis scapo insidentibus*, radicibus *carnosis fasciculatis*.

S. *elatum.*

Radices *terrestres, fasciculati, carnosi.* Folia radicalia *oblongo-lanceolata, suberecta, carnosa, plicis nullis, scapo 3-plò breviora.* Scapus *strictus, ferè 2-pedalis, pubescens, squamis foliaceis viridibus distantibus vaginatus.* Racemus *pedalis et ultra, densus, cylindraceus.* Bracteæ *canaliculatæ, subulatæ, florum ferè longitudine.* Ovarium *pubescens.* Perianthium *cylindraceo-convolutum,* sepalis *viridibus lineari-lanceolatis, versus apicem latioribus,* superiori *petalis agglutinato,* lateralibus *arcuatis, basi valdè obliquis, anticè paululùm sub labello connatis.* Labellum *album, cum columna parallelum, lineare, canaliculatum, sessile, basi ecallosum, paulò dilatatum, medio pubescens, apice ovatum, dilatatum.* Columna *libera, elongata, semiteres, anticè producta, apice ovata,* stigmate *cordiformi,* rostello *acuto, vix bifido,* clinandrio *retrorsùm declivi, immarginato.* Pollinia 2, *bisulca, pulverea,* caudiculâ *brevi,* glandulâ *ovali.*

For the specimen from which our drawing of this new Orchideous plant has been taken, we are indebted to Mrs. Arnold Harrison, who obligingly communicated it in March

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* So named from σαῦρα, a lizard; because many of the parts of this curious plant may be likened to the tongue of some reptile: the leaves may be compared to the tongues of antediluvian Saurians, and the sepals to those of modern species.

last. It is a native of the woods of Brazil, whence it was sent by Mr. Henry Harrison.

A stove plant, requiring to be cultivated in earth, like other terrestrial Orchideæ of the Neottia tribe, to some of which, such as Spiranthes grandiflora and Pelexia spiranthoides, it bears a good deal of resemblance. Its structure is, however, distinctly different from that of any published genus.

As there are several other genera of the Neottia division of Orchideous plants, which are at present only known by name, we avail ourselves of the present opportunity of defining some of those which are the most remarkable, in order that no confusion may be introduced into our nomenclature, in consequence of Botanists being unacquainted with the plants upon which such genera are founded.

SYNASSA *Lindl. Sceletos.*

Perianthium connivens? *Sepala superiora* et petala agglutinata, *lateralia* labello supposita, basi producta in calcare cum ovario connato. *Labellum* cum columnâ omnino connatum, apice crispum, dilatatum, callis duobus infra apicem, basi cuniculatum. *Pollinia* 2, bisulca.—Sp. 1. Synassa corymbosa; in Peru.

CNEMIDIA.

Perianthium connivens. *Sepala* lateralia semiconnata, basi in calcare spurio producta. *Labellum* posticum, liberum, calcaratum, canaliculatum, acuminatum. *Columna* teres, apice acuminata, clinandrio declivi immarginato. *Pollinia* duo, caudiculâ subulatâ. Anthera subulata. (DECAISNIA *Lindl. in Wall. cat.;* nomen libenter mutatum ob Decaisniam Ad. Brongniartii nuperius editam, sed melius cognitam et multò magis divulgatam.)—Sp. 2. Cnemidia angulosa et C. semilibera.

TRIPLEURA *Lindl. in Wall. cat.*

Perianthium explanatum, cruciatum, quasi tetraphyllum, sepalo supremo lato petalis agglutinato, lateralibus linearibus patentissimis. *Labellum* posticum, liberum, concavum. *Columna* teres, brevissima, antice processubus 2 membranaceis (stam. steril.) corniformibus instructa. *Anthera* subrotunda, apiculata, terminalis.

MYODA *Lindl. in Wall. cat.*

Perianthium reflexum, petalis sepalo superiori agglutinatis. *Labellum* anticum, cum columnâ connatum, apice unguiculatum, hastato-tripartitum. *Columna* teres, clavata, clinandrio carnoso cucullato, rostello acuminato obliquo. *Stigma* punctum parvum, bilabiatum. *Anthera* ovata. *Pollinia* 2.

ZEUXINA *Lindl. Sceletos.*

Perianthium connivens. *Sepalum* supremum basi saccatum, lateralia

connata. *Labellum* anticum, basi membranaceum, bicallosum, cum columnâ connatum, apice unguiculatum, carnosum, dilatatum, concavum. *Columna* brevissima, teres, clinandrio membranaceo, antheram involvente. *Pollinia* 4 (v. sec. iconem Hamiltoni 8), in duas massas connata, caudiculâ brevi ligulatâ, glandulâ uncinatâ.

GEORCHIS *Lindl. in Wall. cat.*

Perianthium cylindrico-connivens, basi ventricosum. *Labellum* anticum, sessile, basi intus pilosum, cucullatum, apice convolutum. *Columna* brevissima. *Clinandrium* longissimum, acuminatissimum, immarginatum. *Anthera* acuminatissima. *Pollinia* 4, minuta, caudiculis totidem longissimis setaceis separabilibus.

HYLOPHILA *Lindl. in Wall. cat.*

Perianthium connivens. *Sepalum* supremum arcuatum, lateralia obliquè recurva, ferè uncinata. *Labellum* nanum, anticum, liberum, saccatum, dependens, apiculatum. *Columna* brevissima, clinandrio proclivi, rostello curvo subulato. *Anthera* subulata. *Pollinia* 2, caudiculâ subulatâ.

HÆMARIA *Lindl. Sceletos.* Gonogona *Link.*

Perianthium explanatum, sepalis lateralibus reflexis. *Labellum* liberum, anticum, basi bicallosum, testiculato-saccatum, apice obliquum, unguiculatum, subsagittatum, planum. *Columna* teres, clavata, clinandrio carnoso, cucullato, obliquè torto, rostello acuminato. *Anthera* bilocularis, acuminata, clinandrii cucullo semioccultato. *Pollinia* 2, sulcata.

TROPIDIA *Lindl. in Wall. cat.*

Perianthium connivens. *Sepala* lateralia majora, basi obliquè producta, calcar mentientia. *Labellum* liberum, sessile, ventricosum, compressum, lateribus reflexis lamellatis, apice constrictum, cucullatum. *Columna* teres, clinandrio longè infra stigma excavato. *Anthera* dorsalis, mutica. *Pollinia* 4, in massas 2 bilobas cohærentia, caudiculâ brevi.

HERPYSMA *Lindl. in Wall. cat.*

Perianthium connivens, sepalo supremo paulò sejuncto, lateralibus et petalis antrorsùm arcuatis. *Labellum* anticum, calcaratum, cum columnâ connatum, basi dilatatum, apice abruptè subrotundum, sub apice bicallosum. *Columna* semiteres, clinandrio marginato. *Pollinia* 2, caudiculis distinctis, polline sectili.

J. L.

1619.

[illegible]

1619

ÁSTER* concínnus.

Neat Aster.

SYNGENESIA *SUPERFLUA.*

Nat. ord. Compositæ *Juss.* (*Introduction to the natural system of Botany, p.* 197.)

ASTER.—Suprà, vol. 3. *fol.* 183.

A. *concinnus;* foliis lanceolatis amplectentibus remotè argutè serratis margine scabris, ramulorum oblongis integerrimis, caule laxo subcorymboso, ramis virgatis dichotomo-paniculatis, periclinio arctè imbricato. *Nees gen. et sp. Aster.* 121.

A. concinnus. *Willd. en. hort. Berol.* 2. 884. *Pursh fl. am. sept.* 2. 554.

A native of the plains and woodland of North America, from New York to Pennsylvania, according to Pursh. In the gardens it is a common hardy perennial, growing about 3 feet high, and flowering in September and October.

It is among the most distinct of the species of this difficult genus, being known among the division to which it gives its name, by the smallness of its involucra, and by the lax and very compressed character of its inflorescence on the stronger branches. In only assumes the racemose appearance of our figure on the weak shoots arising from the roots. In general the upper leaves are all very entire, and have an almost linear outline, the lowest only being serrated; but occasionally the leaves are distinctly serrated as high as the lower ramifications of the inflorescence.

For those who have gardens, this is one of the most worth cultivating, because of the gay colour of its flowers, and its neat appearance. The stem is generally tinged more or less with purple.

J. L.

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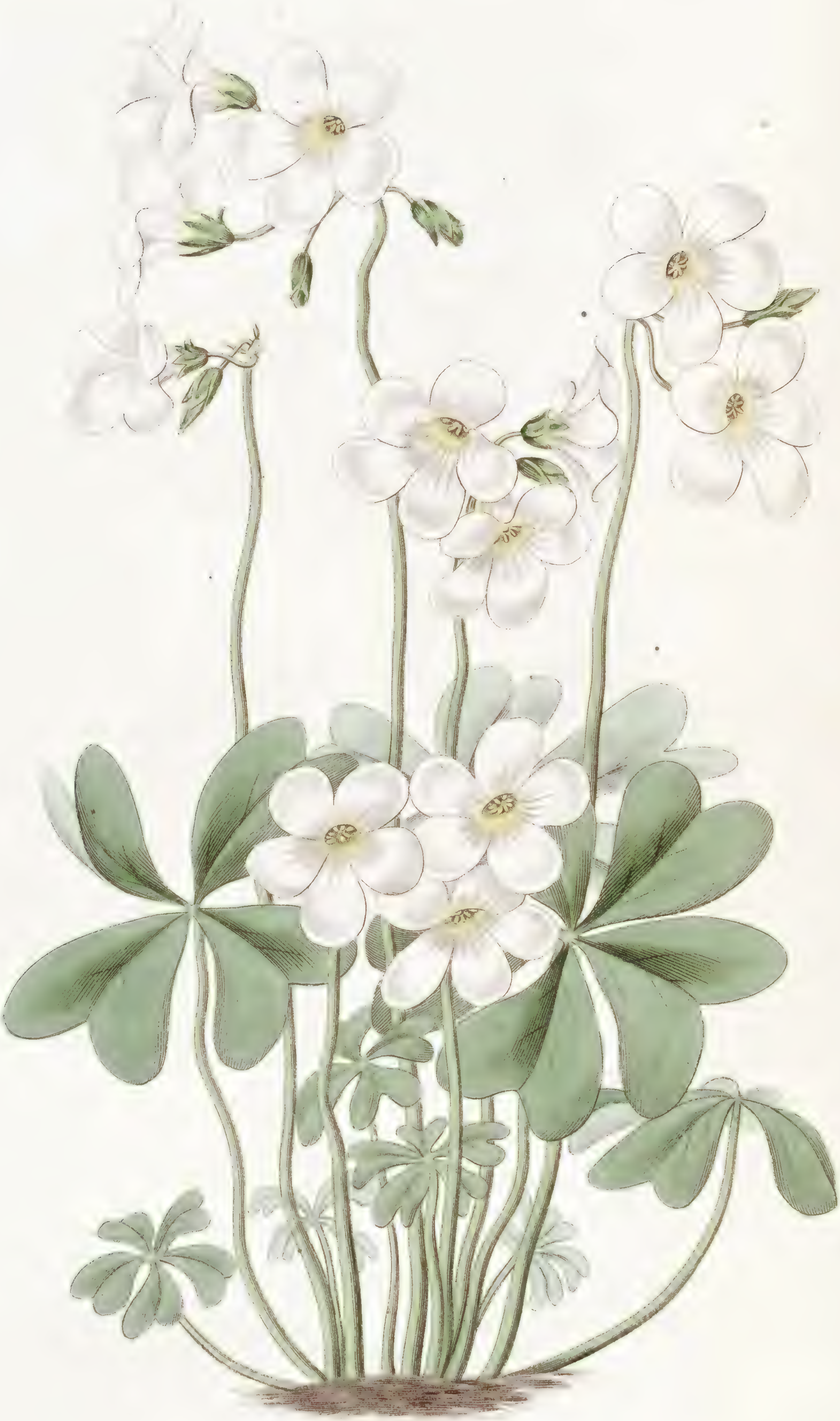
* See fol. 1487.

1620.



M. Hart. del.

Pub by J. Ridgway 169 Piccadilly Oct. 1. 1833.

J. Watts sc.

ÓXALIS* divérgens.

Diverging Wood Sorrel.

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DECANDRIA *PENTAGYNIA.*

Nat. ord. Oxalideæ *De Cand.* (*Introduction to the natural system of Botany, p.* 140.)

OXALIS.—Suprà, vol. 15. *fol.* 1249.

O. *divergens*, acaulis, glabra, foliolis 3 cuneatis bilobis: lobis divergentibus rotundatis, scapis multifloris, sepalis ovatis apice maculâ didymâ notatis, stylis staminibus brevioribus.

O. divergens. *Benth. in herb. Lindl.*

A native of Mexico, whence bulbs were sent, a few years since, to the Horticultural Society by Mr. Graham, from whom we have a wild specimen. It is easily cultivated under a frame which excludes all wet and very severe cold; and, like all the American species of the same habit, prefers the open soil to the confinement of a pot.

It flowers from June to September.

The Botanical affinity of this species is greatest with O. *grandifolia*, like it a Mexican plant with white flowers: it is also allied to O. *violacea;* but the form of the lobes of its leaves distinguishes it from either species.

J. L.

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* See fol. 1249.

1021.

[illegible]

CALCEOLÁRIA* purpúrea.

Purple Calceolaria.

DIANDRIA *MONOGYNIA.*

Nat. ord. SCROPHULARINEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 228.)

CALCEOLARIA.—Suprà, vol. 9. *fol.* 723.

C. *purpurea;* herbacea, caulibus erectis ramosis, foliis venoso-rugosis hispidis, radicalibus cuneato-spatulatis serratis posticè integerrimis subacutis, caulinis cordatis superioribus minoribus integerrimis, corymbis terminalibus multifloris. *Graham in bot. mag.* 2775.

Caules *pilosi, apice subviscidi, bipartiti, racemoso-corymbosi.* Folia *pallidè viridia, crassiuscula, scabrida, grossè reticulata.* Flores *purpurei, corollæ labio superiore minore subfornicato, inferiore triplò majore, plicis* 3-4 *gibbosis.* Ovarium *ovatum, cum stylo glabro staminibus glabris paulò longius.*

A species but seldom seen in collections, being of little interest to the florist, on account of its delicate constitution and want of beauty. It is probably in its native soil a perennial; but it is scarcely better than a biennial when cultivated, from the great difficulty of preserving it alive through the winter. It succeeds best in a pit or cool greenhouse, but not so well in the open air; and is increased both by seeds and offsets.

Our drawing was made in the Garden of the Comte de Vandes in June 1832.

The species is a native of Chile, where it was found near Valparaiso by Mr. Cuming; and in the Cordillera by Mr. Cruckshank, to whom we are indebted for its introduction. J. L.

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* See fol. 1214.

[illegible]

[illegible]

J. Watts sc.

COLLÓMIA* coccínea.

Brick-red Collomia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Polemoniaceæ *Juss.* (*Introduction to the natural system of Botany*, *p.* 219.)

COLLOMIA.—Suprà, vol. 14. *fol.* 1166.

C. *coccinea;* foliis lanceolato-linearibus supremis ovato-lanceolatis integerrimis, v. apice profundè 3-4-dentatis, calyce semi-5-fido: laciniis lato-lanceolatis obtusis, corollis calyce plus duplò longioribus, staminibus inclusis, capsulæ loculis monospermis. *Bentham MSS.*

C. coccinea. *Lehm. delect. sem. hort. Hamburg.* 1832.

C. lateritia. *Don in British flower-garden, t.* 206.

A hardy annual, resembling *Collomia linearis*, from which it is distinguished by its deep-red flowers and by the frequent division of the points of the leaves into three sharp segments of unequal length.

It is a native of Chile, whence its seeds were brought by Mr. Cuming. If sown thick in a large mass, it is tolerably pretty; but single plants have very little to recommend them. It is, however, a good plant to mix with other flowers for bouquets.

The seeds should be sown in March, in the open border, when the flowers will appear in June: if again sown shortly after that time, a second crop of flowers may be had in September and October, seasons which suit it rather better than the dog days.

Our drawing was made in the Garden of the Horticultural Society.

A considerable number of very pretty and remarkable new species of this natural order of plants having been recently received from California by the Horticultural Society, Mr. Bentham has obligingly furnished us with the following epitome of their characters, which we are sure will be extremely acceptable to our Botanical readers.

Hugelia.† Calyx tubuloso-campanulatus semi-5-fidus, sinubus vix membranaceis, laciniis subinæqualibus linearibus rigidis subspinosis. Corolla infundibuliformis, tubo breviter exserto, limbo 5-partito, laciniis oblongis integerrimis. Stamina ad faucem

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[*] See folio 1166.

[†] In honour of Baron Charles de Hügel of Vienna. Hugelia of Reichenbach is Didiscus *D. C.*

inserta. Antheræ lineares, sagittatæ. Capsulæ loculi polyspermi.—Herbæ annuæ vel perennes plus minusve albo-lanatæ. Folia alterna, linearia, integra vel pinnatifida. Flores dense corymboso-capitati, calycibus bracteisque imbricatis lana densa basi immersis.—A Gilia differt habitu et antheris.

1. H. *densifolia,* humilis, caule glabriusculo, foliis crebris fere omnibus pinnatifidis glabratis, segmentis utrinque 2-3 acerosis, corollæ tubo exserto, staminibus corollam subæquantibus.—Corollæ cœruleæ.—California *Douglas.*

2. H. *elongata,* ramis elongatis divaricatis vel procumbentibus tomentosis, foliis brevibus simplicibus vel utrinque segmentis 1-2 auctis, omnibus albo-tomentosis vel demum vix glabratis, corollæ tubo exserto, staminibus corollam superantibus.—Flores intense cœrulei.—California *Douglas.*

3. H. *virgata,* erecta stricta, foliis elongatis simplicibus vel pinnatifidis laxe albo-lanatis, corollæ tubo exserto, staminibus corolla brevioribus.—Flores intense cœrulei.—California *Douglas.*

4. H. *lutea,* erecta, foliis inferioribus elongatis simplicibus glabratis, superioribus abbreviatis pinnatifidis albo-lanatis, corymbis parvis, corollæ tubo incluso, staminibus corollam æquantibus.—Flores lutei.—California *Douglas.*

LINANTHUS.* Calyx tubulosus membranaceus, nervis 5 viridibus validis apice in dentes subulatos recurvos productis. Corolla infundibuliformis, tubo brevi, limbo 5-fido, laciniis obovatis apice crenulatis. Stamina tubo inclusa. Antheræ filiformes, basi vix sagittatæ. Capsulæ loculi polyspermi.—Genus calyce, antheris, et habitu distinctissimum.

1. L. *dichotomus.* Herba annua, glaberrima. Folia opposita, sessilia, palmatisecta, segmentis 3-5 lineari-subulatis. Flores in dichotomiis solitarii, subsessiles, ebracteati, versus apicem ramorum plurimi approximati. Corollæ magnitudine et forma et fere colore *Lini suffruticosi.*—California *Douglas.*

LEPTOSIPHON.† Calyx tubuloso-campanulatus, æqualis, semi-5-fidus, lobis lineari-subulatis acutis, sinubus membranaceis. Corolla infundibuliformis, tubo longe exserto tenuissimo, limbo campanulato 5-fido, lobis ovalibus obtusis integerrimis. Stamina ad faucem inserta. Antheræ oblongæ basi sagittatæ. Capsulæ loculi polyspermi.—Herbæ annuæ, basi glabræ, apice pubescentes. Folia opposita, sessilia, palmatisecta, segmentis linearibus vel subulatis. Flores dense corymboso-capitati, axi sublanato. Bracteæ imbricatæ, foliis conformes, segmentis ciliato-hirsutis.—A Giliis sectionis Dactylophylli corollæ forma distinctus.

1. L. *grandiflorus,* subsimplex, foliis 7-11-fidis, laciniis subulatis strictis margine revolutis, corollæ tubo limbo vix duplo longiore, filamentis brevissimis.—Corollæ cœruleæ fundo aureo vel purpureo.—California *Douglas.*

2. L. *androsaceus,* foliis 5-7-fidis, laciniis oblongo-linearibus, corollæ tubo limbo 2-3-plo longiore, staminibus corollæ limbo triplo brevioribus.—Corollæ minores et intensius coloratæ quam in præcedente.—California *Douglas.*

3. L. *luteus,* foliis 5-7-fidis, laciniis oblongo-linearibus, corollæ tubo limbo subquadruplo longiore, staminibus limbo corollæ subtriplo brevioribus, stylo corollam vix æquante.—Corollæ luteæ fundo intensiore, in var. β pallidiores.—California *Douglas.*

4. L. *parviflorus,* foliis 5-7-fidis, laciniis oblongo-linearibus, corollæ tubo limbo quadruplo longiore, staminibus limbo corollæ vix dimidio brevioribus, stylo subexserto.—Corollæ pallide flavæ fundo intense luteo.—California *Douglas.*

5. L.? *densiflorus,* foliis 9-11-fidis, laciniis subulatis strictis margine revolutis, corollæ tubo limbo breviore.—Corollæ pallide purpurascentes?—California *Douglas.*—Vix non genus proprium inter *Leptosiphones* et *Gilias* sectionis *Dactylophylli* medium.

FENZLIA.‡ Calyx tubuloso-campanulatus, profunde 5-fidus, sinubus membranaceis, laciniis linearibus acutiusculis erectis. Corolla subinfundibuliformis, tubo brevi, limbo 5-partito, laciniis obovatis dentatis. Antheræ ovatæ, sagittatæ, e tubo breviter exsertæ. Capsulæ loculi polyspermi.

1. F. *dianthiflora.* Herba pusilla, subsimplex, 2-3-pollicaris, glabra vel leviter

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* *Linanthus,* from the resemblance of the flower to several species of Linum.

† *Leptosiphon,* from the tenuity of the tube of the corolla.

‡ *Fenzlia,* in honour of Dr. Fenzl, of Vienna, now publishing a monograph of *Alsineæ.*

pubescens. Folia opposita, linearia, integerrima. Flores 1-3 pedunculati. Corolla fere pollicaris, purpurascens, fundo luteo.—California *Douglas*.

Gilia *Cav.*—Calyx campanulatus, 5-fidus, margine et sinubus membranaceis. Corolla infundibuliformis vel subcampanulatus, limbo 5-partito, laciniis obovatis integris. Stamina ad faucem vel vix intra tubum inserta. Antheræ ovato-subrotundæ. Capsulæ loculi polyspermi.—Herbæ, foliis (in *Ipomopside* et *Eugilia*) alternis pinnatisectis, segmentis integris dissectisve, vel (in *Dactylophyllo*) oppositis palmatisectis, segmentis integris subulatis.

Sect. 1. *Dactylophyllum*. Folia inferiora opposita, omnia sessilia palmatisecta. Flores solitarii, longe pedunculati. Corollæ tubus brevissimus, limbus patens.—An genus proprium?

1. G. *liniflora*, foliis inferioribus oppositis omnibus sessilibus palmatisectis, corollis calyce triplo longioribus.—Flores albi? forma et magnitudine *Lino tenuifolio* similes.—California *Douglas*.

2. G. *pharnaceoides*, foliis inferioribus oppositis omnibus sessilibus palmatisectis, corollis calyce duplo longioribus.—A *G. liniflora* differt floribus dimidio minoribus.—California *Douglas*.

3. G. *pusilla*, foliis inferioribus oppositis omnibus sessilibus palmatisectis, corollis calycem vix excedentibus.—Habitus Arenariæ tenuifoliæ. A G. *pharnaceoide* differt floribus dimidio minoribus, corollis minus patentibus.—Chili (La Punta de Cortes) *Bertero*.

Sect. 2. *Ipomopsis*. Folia alterna pinnatisecta vel pinnatifida. Flores solitarii vel subglomerati. Corollæ tubus elongatus longe exsertus.

4. *Gilia coronopifolia* Pers. syn. 1. 187. *Ipomopsis elegans* Sm. exot. bot. 1. 23. t. 13. Carolina.

5. *Gilia pulchella* Dougl. MSS. *Ipomopsis elegans* Lindl. bot. reg. 15. t. 1281. North-West America.

6. G. *tenuiflora*, caule erecto elato superne viscoso subnudo paniculato, foliis bipinnatisectis glabris, floribus subsolitariis, corymbis laxis longe pedunculatis, corollis calyce 4-plo longioribus.—Flores cœrulei.—California *Douglas*.

7. G. *arenaria*, caule humili viscoso subnudo, foliis pinnatifidis, lobis ovatis, floribus subglomeratis, corollis calyce 3-plo longioribus.—Flores cœrulei.—California *Douglas*.

8. G. *crassifolia*, caule erecto viscoso superne paniculato subnudo, foliis pinnatifidis sublanatis demum glabratis, segmentis oblongo-lanceolatis integris incisisve, floribus subsolitariis divaricato-paniculatis, corollis calyce duplo longioribus.—Flores flavescentes?—Chili *Cuming*, *Bridges*.

Sect. 3. *Eugilia*. Folia alterna pinnatifida vel pinnatisecta.—Flores subsolitarii vel sæpius glomerati. Corollæ tubus calyce subbrevior.

9. G. *inconspicua* Dougl.; Bot. mag. 56. t. 2883. *Ipomopsis inconspicua* Sm. exot. fl. t. 14.—North-West America *Douglas*.

10. G. *tricolor*, caule erecto glabro folioso, foliis bipinnatisectis, segmentis lineari-subulatis, corymbis 3-6-floris virgato-paniculatis, corollis calyce subtriplo longioribus.—Corollæ tubus luteus, limbus flavescens? fundo purpureo.—California *Douglas*.

11. G. *laciniata* Ruiz et Pav. fl. Per. et Chil. 2. 17. t. 123. Chili *Macrae*, *Bridges*, *Bertero*, *Cuming*, 729. *&c.* Peruvia *Ruiz et Pavon*. California *Douglas*.

12. G. *multicaulis*, caule erecto glabriusculo, foliis subbipinnatisectis glabriusculis, segmentis linearibus, corymbis 3-10-floris longissime pedunculatis vix paniculatis, corollis calyce vix duplo longioribus.—Corollæ cœruleæ.—California *Douglas*.

13. G. *achilleæfolia*, caule erecto glabriusculo, foliis bi-tri-pinnatisectis, segmentis lineari-subulatis, corymbis capitatis multifloris longissime pedunculatis, calycibus sublanatis, corollis calyce duplo longioribus, staminibus corolla brevioribus.—Corollæ cœruleæ.—California *Douglas*.

14. G. *capitata* Douglas; Hook. bot. mag. 56. t. 2698. Lindl. bot. reg. 14. t. 1170.—North-West America *Douglas*.

Ægochloa.[*] Calyx tubuloso-campanulatus, basi membranaceus, apice 5-fidus, laciniis inæqualibus rigidis integris multifidisve spinosis. Corolla subhypocrateriformis, tubo

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[*] *Ægochloa*, from the fœtid smell of some of the species.

calycem subæquante, limbo 5-partito, laciniis oblongis integris. Stamina intra partem superiorem tubi inserta. Antheræ ovato-subrotundæ. Capsulæ loculi polyspermi.—Herbæ plerumque glutinosæ fœtidæ. Folia pinnatisecta, segmentis incisis acutissimis. Flores dense capitati, bracteis inciso-multifidis spinosis suffulti.

1. Æ. *intertexta*, erecta ramosa, foliis glabris pinnatisectis, segmentis lineari-subulatis acutissimis incisis divaricatis subspinosis, calycis sublanati dentibus plerumque multifidis, corollis calyce subbrevioribus, staminibus exsertis.—California and North-West America *Douglas*.

2. Æ. *cotulæfolia*, erecta stricta, foliis glabris bipinnatisectis, segmentis lineari-subulatis acutissimis foliorum superiorum floraliumque spinosis, bracteis villosulis, dentibus calycinis subintegris, corollis calycem æquantibus, staminibus exsertis.—California *Douglas*.

3. Æ. *pubescens*, molliter pubescens, caule ramoso, foliis pinnatisectis, laciniis inciso-pinnatifidis, lobulis divaricatis subspinosis, calycibus bracteisque basi membranaceis glabris apice inciso-pinnatifidis villosis, corollis calyce subduplo longioribus, staminibus e tubo exsertis.—California *Douglas*.

4. Æ. *pungens*, *Gilia pungens* Dougl.; Hook. bot. mag. 57. t. 2977. viscoso-pubescens, foliis pinnatisectis, segmentis integris incisisve, laciniis lanceolato-linearibus acutissimis spinosis, bracteis ciliato-hirtis basi dilatatis, dentibus calycinis lanceolatis subintegris, corollis exsertis, staminibus tubo inclusis.—California *Douglas*.

5. Æ. *eryngioides*, *Gilia eryngioides* Bot. zeit. 1833. 1. 122. G. *mucronata* Lehm. del. sem. hort. Hamb. 1832?—Chili *Cuming*, *Bridges*, *Bertero*, *&c*.

6. Æ. *atractylioides*, viscosissima, foliis pinnatifidis rhachi dilatata, lobis subulatis divaricatis spinosis, floralibus ovatis imbricatis spinoso-dentatis flores amplectentibus, dentibus calycinis subulatis integris. — Habitus *Atractylidis humilis*.—California *Douglas*.

Collomia. Calyx campanulatus 5-fidus vel sub-5-partitus, lobis lanceolatis linearibusve æqualibus integris. Corolla hypocrateriformis, tubo tenui exserto, limbo patente 5-partito, laciniis oblongis integris. Stamina versus medium tubi inserta. Antheræ ovato-subrotundæ. Capsulæ loculi 1-2-spermi. — Herbæ, folia alterna, rarius inferiora opposita integra inciso-dentata vel rarius pinnatifida. Flores dense capitati, bracteis lato-ovatis integerrimis suffulti.

1. C. *heterophylla* Hook. bot. mag. 56. t. 2895. Lindl. bot. reg. 16. t. 1347.—North-West America *Douglas*.

2. C. *coccinea* Lehm. *Supra*.

3. C. *grandiflora* Dougl. Lindl. bot. reg. 14. t. 1174. Hook. bot. mag. 56. t. 2894.—North-West America *Douglas*.

4. C. *linearis* Nutt. gen. 1. 126. Lindl. bot. reg. 14. t. 1166. Hook. bot. mag. 6. t. 2893.—North-West America.

5. C. *gilioides*, foliis pinnatisectis, segmentis linearibus integris, calycibus profunde 5-fidis, staminibus tubo corollæ inclusis, capsulæ loculis monospermis. — Corollæ C. *gracilis*.—California *Douglas*.

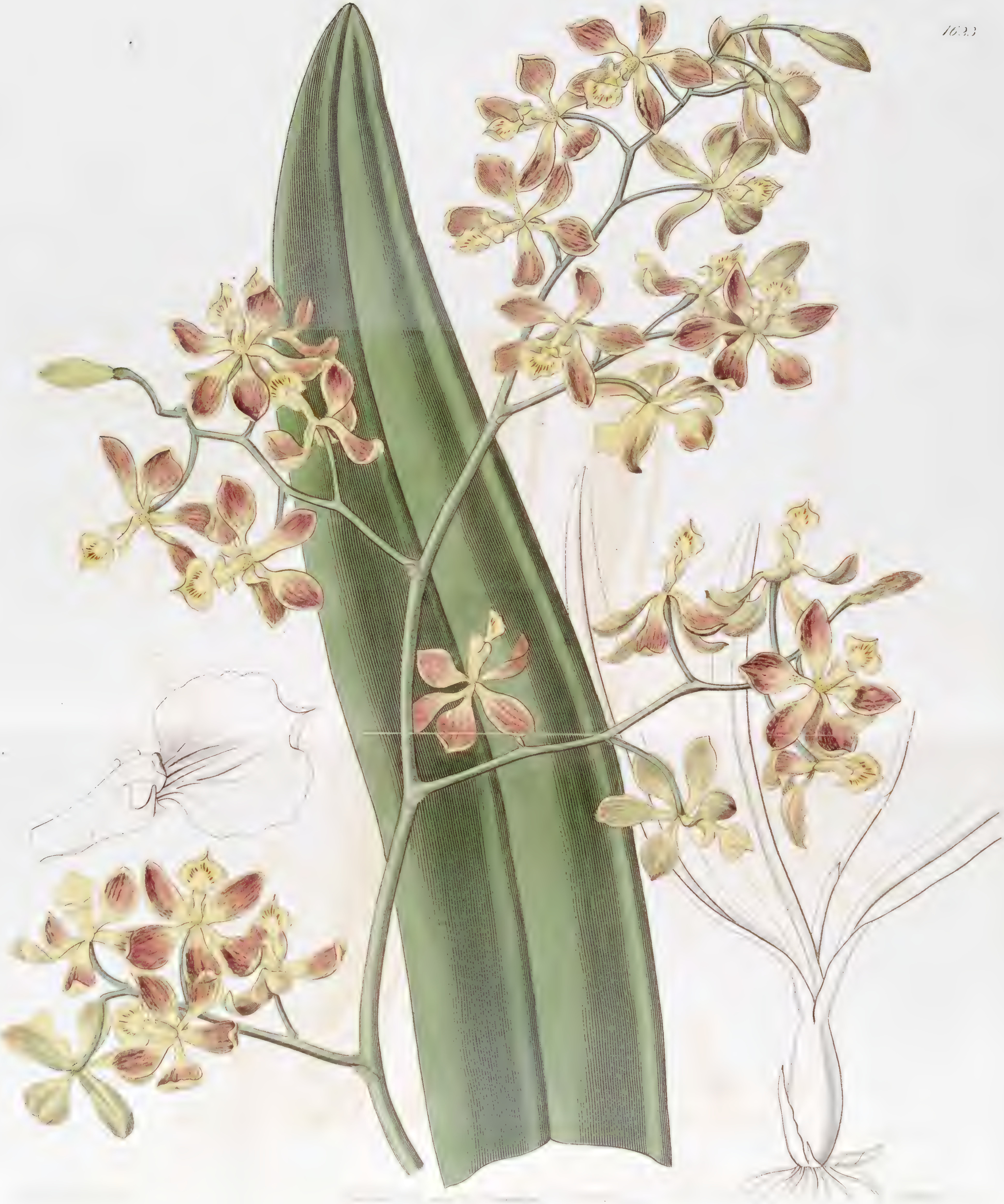
6. C. *glutinosa*, procumbens, foliis subpinnatisectis, segmentis oblongo-linearibus integris vel subincisis, calycibus sub-5-partitis, staminibus corolla longioribus, capsulæ loculis monospermis.—Corollæ C. *gracilis*.—California *Douglas*.

7. C. *gracilis* Dougl. *Gilia gracilis* Hook. bot. mag. 56. t. 2924. Calyces 5-partiti. Folia inferiora opposita.—North-West America and California *Douglas*, Chili *Cuming*, *Bertero*, *Bridges*, *&c*. 147.

Phlox pinnata Cav. ic. 6. 17. t. 528. f. 1. is probably another Collomia, and *Cantua aggregata* Pursh fl. amer. sept. 1. 147. a Gilia; but I have not seen either of them, and they are too imperfectly described to refer them to either genus with certainty.

J. L.

1633



1623

EPIDÉNDRUM* oncidioídes.

Oncidium-flowered Epidendrum.

◆

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. § Epidendreæ *Lindl.* (*Introduction to the natural system of Botany, p.* 262.)

EPIDENDRUM.—Suprà, vol. 17. *fol.* 1415.

§. Foliis in pseudobulbos insidentibus. *Lindl. gen. et sp. of Orchideous plants, p.* 97.

E. *oncidioides*, foliis in pseudobulbos ovales ancipites 2-3 ensiformibus paniculâ terminali ramosâ brevioribus, sepalis petalisque obovatis unguiculatis patentibus, labelli liberi trilobi lobis lateralibus nanis oblongis columnæ longitudine intermedio subrotundo cuspidato basi 5-costato.

Pseudobulbi *oblongi, ancipites, pallidè virides.* Folia 2-3, *latè ensiformia, subobtusa, ferè bipedalia,* 1½ *poll. longa, pallidè viridia.* Scapus *ferè à basi paniculatus, terminalis,* 3 *pedes longus, divaricatim ramosus.* Flores *odoratissimi.* Sepala *et* petala *sordidè lutea, versus apicem fusco-purpurea.* Labellum *sordidè luteum, lineis quibusdum brevibus in discum.*

For this noble plant we are indebted to our indefatigable correspondent Richard Harrison, Esq. of Liverpool, who favoured us with a splendid specimen, along with a sketch by Mrs. Arnold Harrison, in June last. It has so much the appearance of Oncidium luridum, that we at first sight took it for a new species of that genus: it is, however, a genuine Epidendrum, nearly allied to E. *odoratissimum*, with which it agrees in its delicious and powerful fragrance: when the specimen was unpacked, the whole air of the room became perfumed as if a basket full of violets and roses had been scattered over the floor.

No doubt it is a native of some part of South America, but of what country in particular is uncertain. Mr. Harrison informs us, that he received it from Mr. Cattley, who knew nothing of its history. It has been many years in the country, and is in almost every collection; but it never flowered before. Generally the plants one sees are so weak as to resemble the very different East Indian species called Liparis longipes; and the history of Mr. Harrison's having at last succeeded in flowering it, is no doubt his superior mode of cultivation. The leaf we received with the specimen was near two feet long; and the panicle itself fully three feet from one extremity to the other.

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* See fol. 1415.

We think it is one of the most interesting species we have yet figured; for it is not only handsome, singular, and fragrant, but its flowers are very durable, remaining in perfection for at least a fortnight.

J. L.

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ANTHOCÉRCIS* viscósa.

Clammy Anthocercis.

◆

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. SCROPHULARINEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 228.)

ANTHOCERCIS.—Suprà, vol. 3. *fol.* 212.

A. *viscosa;* foliis obovatis glanduloso-punctatis margine scabriusculis: novellis ramulisque tenuissime pubescentibus, capsulâ ovatâ calycem subæquante. *R. Brown prodr.* 1. 448. *Hooker in bot. mag. t.* 2961.

A native of the southern coast of New Holland, where it was first found by Dr. Brown. It is a handsome shrub, with dark green neat leaves; and if kept in health is a very desirable greenhouse plant, easily propagated by cuttings, and flowering in May and June.

Being of a soft nature, never forming any hard wood, or well-ripened shoots, it is peculiarly liable to injury from over-watering, or from the earth in which it is planted becoming saturated; if this happens, it immediately sickens, its leaves losing their dark green colour, and becoming of a pale yellow hue. Inconvenience of this kind any gardener will know how to guard against.

Our drawing was made in Mr. Lowe's Nursery in May last.

This genus, usually referred to Solaneæ, appears rather to belong to Scrophularineæ, for reasons which will be explained at fol. 1626.

J. L.

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[*] Κερκις, a ray, in combination with ἄνθος, a flower, furnished M. Labillardière with a name for this star-flowered genus.

a

LEPTÓTES* bícolor.

Two-coloured Leptotes.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchideæ. § Epidendreæ. (*Introduction to the natural system of Botany, p.* 262.)

LEPTOTES.—Sepala et *petala* linearia, subæqualia, patentia. *Labellum* posticum, trilobum, cum columna parallelum, laciniis lateralibus nanis circa columnam convolutis, intermediâ oblongâ marginibus reflexis. *Columna* brevis, crassa, semiteres. *Anthera* .... *Pollinia* sex, incumbentia, quorum 2 superiora pyriformia obliqua compressa, 4 inferiora inæqualia tenuiora, anterioribus duplò minoribus.——Caules *breves, teretes, squamis vaginati.* Folia *teretia. Scapus* terminalis, simplex.

Leptotes bicolor.

Caules *unciales, inter muscos provenientes, teretes, squamis membranaceis acuminatis vaginati, quorum superiores caulem sæpiùs superant.* Folia *solitaria, 3-4 poll. longa, atroviridia, rigida, cylindracea, supra sulcata.* Racemus *triflorus, folio brevior, bracteis minimis*; pedicelli *erecti, pedunculo longiores.* Sepala *et* petala *candida, æqualia, linearia, patentia.* Labelli *laciniæ laterales, candidæ, lineari-ovatæ, obtusæ; intermedia sanguinea, apice et margine candida, oblongo-lanceolata, acuta, pone basin quasi fracta, et ibi fascia angusta, pallida, notata.* Columna *viridis.* Pollinia *lutea, filis nullis replicatis, nec glandulâ ullâ separabili adhærente.*

It is to Mrs. Arnold Harrison that we are obliged for this pretty little plant, which flowered in her stove in April last. It is a native of the Organ mountains of Brazil.

Its habit seems to be to grow among broken potsherds, decayed vegetable matter, and moss; treated in this way, a small portion, sent to us with the sketch from which our drawing was made, struck root, and has now become a little healthy plant.

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* From λεπτὸς, slender; in allusion to the leaves.

Leptotes differs from Tetramicra,* next to which it should be placed in any system, firstly, in the singular structure of its pollen-masses; secondly, in the dwarf character of the lateral lobes of the labellum; and thirdly, in the want of a spur adhering to the ovarium. It is also nearly related to Brasavola, from which it is known by its pollen-masses, and by its 3-lobed labellum.

J. L.

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* This genus, founded on the *Cymbidium rigidum* of Willdenow, is the *Brasavola elegans* of the Botanical Magazine, t. 3098; a plant which we believe has not yet been introduced.

1626.

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PETÚNIA* violácea.

Purple Petunia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Solaneæ *Juss.* (*Introduction to the natural system of Botany, p.* 231.)

PETUNIA.— *Calyx* breve tubulosus, laciniis foliosis. *Corolla* tubo cylindraceo v. ventricoso, limbo plicato inæquali plano 5-lobo. *Stamina* 5, inæqualia, inclusa, medio tubo corollæ inserta. *Ovarium* disco insertum, dente unico utrinque ad suturam instructo. *Stigma* capitatum. *Capsula* valvis 2 integris, *seminibus* sphæricis reticulatis.

P. *violacea;* caulibus prostratis viscido-pilosis, foliis ovatis brevi-petiolatis acutis, corollæ ventricosæ laciniis ovatis acutis.
Petunia violacea. *Brit. fl.-gard. n. s.* 193.
Salpiglossis integrifolia. *Hooker in bot. mag. t.* 3113.
Nierembergia phœnicea. *Brit. fl.-gard. n. s.* 193.

Semina *minuta, sphærica, pallidè testacea; testâ lævi grossè reticulatâ,* hilo *minimo.* Embryo *brevis, rectus, in axi albuminis copiosi carnosi albi,* radiculâ *hilo versâ.*

A native of Buenos Ayres, and, like all other herbaceous plants from the same country, quite hardy in England during the summer; in winter it requires protection from frost. There is perhaps no plant yet in our Gardens which is quite so handsome as this; even the Verbena chamædrifolia, superior as it is in colour, must yield to it in point of general beauty. It forces well: grown in a greenhouse, with its prostrate branches tied to the bars of a trellis or wire screen, it soon covers a space three feet square with its leaves and flowers, and so becomes a striking object before any of the hardy border-flowers have begun to expand. Planted singly against a wall or fence in the open ground, it is also a striking ornament; but it is only when collected into a large bed in the open air, and allowed to entangle and interlace its branches, till every piece of soil is concealed, that its whole splendour is developed. It then produces, from August to October, a succession of its purple blossoms, which are yielded in such profusion, and of so bright a colour, as to render the spot where it grows almost too bright to look upon.

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* *Petun* is the Brazilian name of one of the species.

It will grow in any sort of earth, but prefers a rich old long-cultivated soil, with a warm and sheltered exposure. It is readily increased by cuttings, which should be struck like those of a Geranium.

Petunia violacea, *Nierembergia phœnicea*, and especially *Salpiglossis integrifolia*, are the names by which it is known. We adopt the first in preference, for the following reasons: *Salpiglossis* is a genus now common in this country, with didynamous stamens and an imbricated corolla, two highly important characters, which are wanting in this plant; *Nierembergia* is, like it, pentandrous; but the peculiar form of the corolla, the absence of teeth upon the disk, and the singular lunate stigma of that genus, render it impossible to place this in *Nierembergia* without violating every principle of generic distinction: if there is any one genus in Solaneæ more natural and more positively defined by obvious and important characters than another, it is *Nierembergia*, properly so called, with which this ought on no account to be confounded. But from *Petunia*, of which the now common *Petunia nyctaginiflora* may be taken as the type, the plant before us differs in nothing whatever except the inflated tube of its corolla, and the size of its embryo: *Petunia* is remarkable for the thickened bases of its filaments, which all arise upon the same plane from the middle of the tube, for its capitate stigma, the oblique limb of its corolla, the leafy segments of its calyx, and for its disk, which bears a distinct tooth on each side where it touches the suture of the ovarium. Now there is not one of these highly characteristic marks in which this plant differs from Petunia, to which we, without any scruple, refer it.

Having been referred to Salpiglossis by so acute and experienced a Botanist as Dr. Hooker, it is to be presumed that some doubt is entertained whether it belongs to Solaneæ or Scrophularineæ; we will, therefore, take the liberty of offering a remark or two upon this subject.

The general mode of distinguishing Solaneæ from Scrophularineæ is by the very obscure character of the curved embryo of the former. It is true that Dr. Brown adds to this a plaited corolla, and stamens equal in number to the segments of the corolla and calyx; but it is plain that he considers these less absolute than the curved embryo, because he admits such plants as Anthocercis, which has didynamous stamens and an imbricated corolla, placing them indeed in a distinct section, but still referring them to Solaneæ. Dr. Bartling, in his valuable work on the Natural Orders of Plants, does not adopt this view, but attaches only a subordinate importance to the form of embryo, and makes the distinction between the two orders depend upon the plaited corolla and symmetrical flowers of Solaneæ, as contrasted with the imbricated corolla and didynamous flowers of Solaneæ. Dr. Hooker adopts Dr. Brown's opinion, as we have also ourselves in "the Introduction to the Natural System of Botany;" and Mr. Arnott does the same, but with some misgivings as to its being right. In our latest work upon such subjects, the *Nixus Plantarum*, we have followed Dr. Bartling, abandoning our former view of the matter. We trust we may now be permitted to explain wherefore.

There can be only one reason for such a character as the curved embryo being adopted as an absolute distinction between two nearly allied orders, in preference to all others, and that must be its uniformly accompanying other essential points of structure. How far this is the case will be apparent from two or three plants allied to that now under consideration. In Petunia nyctaginiflora is found the common curved and twisted embryo of Solaneæ; but in Petunia violacea the seeds of which cannot externally be distinguished from those of the latter, not even when seen lying side by side upon the field of the microscope, the embryo is perfectly straight, and much shorter, so that it appears to be of no more than specific importance in this case; in *Salpiglossis straminea* the embryo is curved and partly spiral; yet in all other characters the genus agrees with Scrophularineæ; finally, in *Nicotiana persica,* which no one can doubt being a genuine species of Solaneæ, the embryo is nearly straight. We therefore are obliged to conclude, that a false importance has been given to this, *as it certainly has to a great many other microscopic characters;* a truth which has not escaped the acuteness of Fries. But to the plaited corolla and symmetrical flowers there are no exceptions that we know of; and these, therefore, we prefer as marks of distinction.

Solaneæ and Scrophularineæ are, however, orders so very nearly related in nature, that scarcely any real limits can be expected between them. Where they touch, their similarity must almost amount to identity. Nevertheless, as the orders are no doubt most truly and naturally distinct to a great extent, we could not for the reasons just mentioned combine them. They should rather be considered as the connecting groups of two larger masses of plants, of which one has a tendency towards regular flowers and symmetrical stamens, and the other a tendency towards irregular flowers and didynamous stamens. This arrangement, which we have carried into effect in the *Nixus Plantarum,* may be thus expressed: —

DICARPÆ Solaneæ. *Petunia.* | *Salpiglossis.* Scrophularineæ. PERSONATÆ.

J. L.

1627.

[illegible]

1627

CYRTOCHÍLUM* flavéscens.

Straw-coloured Cyrtochilum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ *Juss.* § Vandeæ *Lindl.* (*Introduction to the natural system of Botany, p.* 262.)

CYRTOCHILUM Humb. et Kunth.—*Perianthium* explanatum. *Sepala* libera, lateralia unguiculata. *Petala* paulò minora. *Labellum* ecalcaratum, indivisum, ungue tuberculato cum basi columnæ continuo. *Columna* brevis, alata. *Anthera* bilocularis. *Pollinia* 2, caudiculâ filiformi, glandulâ minutâ. —— Herbæ *epiphytæ, v. terrestres, pseudobulbosæ.* Folia *coriacea.* Scapi *radicales, paniculati.* Flores *speciosi.* Genera et sp. of Orchideous plants, p. 210.

C. *flavescens;* foliis lineari-ensiformibus geminatis scapo æqualibus, scapo compresso arctissimè vaginato, racemo multifloro, bracteis glumaceis (flavescentibus) floribus subæqualibus canaliculatis, labello sessili ovato-lanceolato repando crispo basi pubescente inappendiculato.

Rhizoma *epigæa, teres, tortuosa, repens.* Folia primordialia *brevia, lineari-oblonga, è medio pseudobulbum, oblongum, angustum, diphyllum promentia;* perfecta *lineari-ensiformia, obtusa, apiculata, pallidè viridia, patula, racemi longitudine.* Vaginæ *scapi arctissimè imbricatæ, acuminatæ, carinatæ, flavo-virides.* Bracteæ *ultra 2 poll. longæ, glumaceæ, stramineæ, canaliculatæ, acuminatæ, floribus parùm breviores.* Sepala *et* petala *flava, lineari-lanceolata, acuminata.* Labellum *sessile, flavum, sanguineo-maculatum, basi pilis crebris loco tuberculorum munitum.*

A native of Mexico, whence it was imported by Mr. Tate about three years ago.

It flowered for the first time in June last in the collection of Richard Harrison, Esq. of Aighburgh, to whom we are indebted for a specimen, along with a sketch from the pencil of Mrs. Arnold Harrison.

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* From κυρτὸς, convex, and χεῖλος, a lip; in allusion to the form of the labellum.

It is interesting not only for its beauty, but also as being the first species of the genus which has yet blossomed in Europe. Like the other kinds, its flowers turn orange-colour in drying.

A tender stove plant, growing upon a branch of a tree, or in a pot among decayed vegetable matter and potsherds.

J. L.

Miss Drake del

Pub by J Ridgway 169 Piccadilly Nov. 1. 1833.

CALCEOLÁRIA* séssilis.

Sessile-leaved Calceolaria.

DIANDRIA *MONOGYNIA.*

Nat. ord. Scrophularineæ *Juss.* (*Introduction to the natural system of Botany, p.* 228.)

CALCEOLARIA.—Suprà, vol. 9. *fol.* 723.

C. *sessilis;* herbacea, caulibus erectis ramosis incanis, foliis sessilibus ovato-lanceolatis serrulatis rugosis semiamplexicaulibus subtùs incanis, cymis subterminalibus axillaribusque subpaniculatim ordinatis, corollæ labiis subæqualibus conniventibus, stylo subulato staminum longitudine.

Calceolaria. *Herb. Mathews, no.* 207.

C. sessilis. *Fl. peruv.* 1. *p.* 18. *Syst.* 332. *Römer et Schultes' syst. veg.* 1. 187. *Dietrich sp. pl.* 1. 597.

Caulis *incano-tomentosus, subquadrangularis, basi frutescens.* Folia *omnia subæqualia, superiora præsertim sessilia, subamplexicaulia, basi triangulari-ovata, serrulata, supra reticulato-rugosa, subtùs incana.* Corollæ *pallidè luteæ, labiis conniventibus subæqualibus.* Cymæ *nunc longè nunc brevi pedunculatæ, unde inflorescentia vel laxa v. compactior.*

In no collection of dried specimens of Chilian plants have we seen this, except in one from Mr. Mathews, who gathered it about Valparaiso. The Hon. and Rev. W. Herbert raised it from seeds collected by Mr. Cuming, and obliged us with specimens in September 1832. We have met with it in no collection near London.

It is always a neat-looking herbaceous species, with a tendency to become shrubby, and is very beautiful when growing vigorously in the open border. Its habits are no doubt those of C. integrifolia, to which it is nearly related:

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* See fol. 1214.

it is readily known by the hoary colour of the under-side of the leaves, and by the upper leaves being generally sessile, with almost triangular bases. The figure we have given is taken from a very rapidly grown specimen, in which this character is less distinct than usual.

J. L.

Miss Drake del. [illegible] Ridgway [illegible] Piccadilly [illegible] [illegible]

HIBÍSCUS* spléndens.

Splendid Hibiscus.

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MONADELPHIA *POLYANDRIA.*

Nat. ord. MALVACEÆ *Juss.* (*Introduction to the natural system of Botany*, p. 33.)

HIBISCUS.—Suprà, vol. 1. *fol.* 29.

Sect. 2. Carpella polysperma. Semina glabra aut in dorso lineâ subvillosâ. Corollæ expansæ. Involucella foliolis 8-15 integris constantia. (*Abelmoschus.*) De Cand. prodr. 1. 449.

H. *splendens;* caule aculeato ramoso arborescente incano, foliis palmatis 3-5-lobis velutinis petiolo costâque aculeatis, involucello 15-fido, laciniis lineari-subulatis hispidis.

H. splendens. *Graham in Edinb. phil. journal et bot. mag. t.* 3025.

A native of New Holland, whence seeds were sent by the late Mr. Frazer in 1828. In this country it is a stove plant, requiring plenty of light and atmospheric moisture during its season of growth. It flowers in August, and is readily propagated by cuttings.

Dr. Graham first described the species from a plant that flowered in the Botanic Garden, Edinburgh; and, speaking of its great beauty, quotes the following passage from one of Mr. Frazer's letters: "This I consider the king of all the known Australian plants. I have seen it twenty-two feet and a half high; the flowers this year measured nine inches across; they were of the most delicate pink and crimson colour, and literally covered the entire plant."

J. L.

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[*] See fol. 1463.

1630.

[illegible] del.   Pub by J. Ridgway 169 Piccadilly Dec. 1. 1833.   J. Watts sc.

LIBÉRTIA* formósa.

Handsome Libertia.

◆

MONADELPHIA *TRIANDRIA.*

Nat. ord. IRIDEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 260.)

LIBERTIA Spreng. (Renealmia *R. Br.*; Nematostigma *Dietrich.*)—*Perianthium* 6-partitum, regulare; foliolis interioribus majoribus basi angustatis. *Filamenta* infernè connata v. distincta, supernè patentia. *Stigmata* 3, involuto-filiformia, acuta. *Capsula* obovato-clavata. *Semina* angulata. *Inflorescentia* subpaniculata, fasciculorum spathis abbreviatis.——*Herbæ sylvicolæ glabræ.* Radix *fibrosa, nunc è rhizomate.* Folia *graminea, laxa, nervosa.* Caulis *teretiusculus, quandoque divisus.* Fasciculi *alterni, umbellati,* spathis *persistentibus.* Perianthium *album, patulum, citò deciduum;* foliolis exterioribus *extùs sæpiùs virescentibus;* interioribus *sæpè unguiculatis.* Capsula *membranacea.* Semina *biseriata, atra.* R. Brown prodr. sub Renealmia.

L. *formosa;* caule folioso, foliis radicalibus caule brevioribus margine lævibus, laciniis perianthii exterioribus ovatis apice subherbaceis carinatis, interioribus unguiculatis cordatis retusis, filamentis basi cohærentibus, fructibus flore minoribus. *Graham in Edinb. phil. journal, Oct.* 1833.

We are obliged to Mr. Lowe, of the Clapton Nursery, for the opportunity of figuring this rare plant, which was found by Mr. James Anderson in the island of Chiloe, growing on the sea-shore within reach of the waves. It is a half-hardy herbaceous plant, flowering in May, and increased by dividing the root-stock.

Dr. Graham, from whom we borrow the following description, judiciously adopts the name Libertia for this genus, in preference to that of Nematostigma given it by

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* So called in compliment to Mademoiselle M. A. Libert, a learned Belgian botanist.

Dietrich. The Libertia of Lejeune, or Michelaria of Dumortier, is considered with good reason to be a Bromus.

"*Root-leaves* (6 inches to 1 foot long, 2 to 4½ lines broad) equitant, every where glabrous, membranous at the edges of the sheath, linear-swordshaped, acute, nerved, the central nerve thicker and stronger than the rest; *stem-leaves* few (about three), sheathing, smaller upwards (the uppermost 1½ inch long), in form and structure like the root-leaves. *Stem* (1 foot 4 inches high) simple, very slightly compressed, glabrous, light green, jointed at the origin of the leaves. *Flowers* capitate, pedicels light green, round, glabrous, outer spathe bivalvular, longer than the pedicels, membranous, repeated on the inner flowers, which expand in succession. *Perianth* superior, 6-partite, glabrous, rotate, tube none, outer segments small, narrow, ovate, and colourless at the base, concave, keeled, and subherbaceous at the apex; inner segments (7 lines long, 6 lines broad) about twice the length of the outer, unguiculate, cordate, entire, very slightly crisped, retuse at the apex, somewhat fleshy or like white wax, with a distinct, somewhat diaphanous middle rib, and very faint diverging lateral nerves. *Stamens* 3, inserted into the base of the corolla, opposite to the outer segments, about as long as the inner; filament, like these segments, pure white, erect, cohering for about a quarter of their length, above which they diverge a little; anthers yellow, incumbent, oblong, cleft at both ends, but especially at the lower, opening along the sides. *Stigmata* minute, terminal, capitate, colourless. *Style* white, single, shorter than the stamens, cleft into three to the point where the filaments cohere, segments diverging between the filaments, each thicker than the cohering part included within the sheath of the filaments. *Germen* inferior, oblong, triquetrous, green, glabrous, 3-locular. *Ovules* numerous, oblong, mutually impressed, fixed into a central placenta."

J. L.

Pub by J. Ridgway

COMBRÉTUM* grandiflórum.

Large-flowered Combretum.

DECANDRIA *MONOGYNIA.*

Nat. ord. COMBRETACEÆ *R. Brown.* (*Introduction to the natural system of Botany, p.* 66.)

COMBRETUM.—Suprà, vol. 14. *fol.* 1165.

C. *grandiflorum*; inerme, scandens, foliis oppositis brevè petiolatis oblongo-subcordatis acuminatis integerrimis utrinque ramulisque parcè hirsutis, spicis secundis axillaribus terminalibusque, bracteis ovatis acutis, floribus 5-petalis 10-andris erectis confertis, calycibus subglabris, staminibus inclusis (exsertis). *Graham in Edinb. phil. journal, April* 1832.

C. grandiflorum. *G. Don in Edinb. phil. journal,* 1824, *p.* 346. *De Cand. prodr.* 3. 21. *Hooker in bot. mag. t.* 2944. *Graham in Edinb. phil. journal, April* 1833.

One of the many noble plants in which the once-fatal colony of Sierra Leone abounds. It is not a climber, as it is sometimes called, but rather a scrambling plant, raising itself upon other plants by means of a very curious kind of hook with which nature has ingeniously supplied it. At first sight one would wonder what this hook can be; for nothing like spine, or prickle, or tendril, can be discovered upon the branches; for want of these, it is necessary that their place should be supplied by some special provision, which is of the following kind. When the leaves are first fully formed, they are seated upon a footstalk of a very common appearance; but after a time they fall away, leaving the leafstalk behind; the latter does not wither up, but gradually lengthens, hardens, sharpens, and curves, till at last it becomes a powerful hook, admirably adapted for catching hold of the branches of any tree that it may be near, and thus elevating the plant from the earth.

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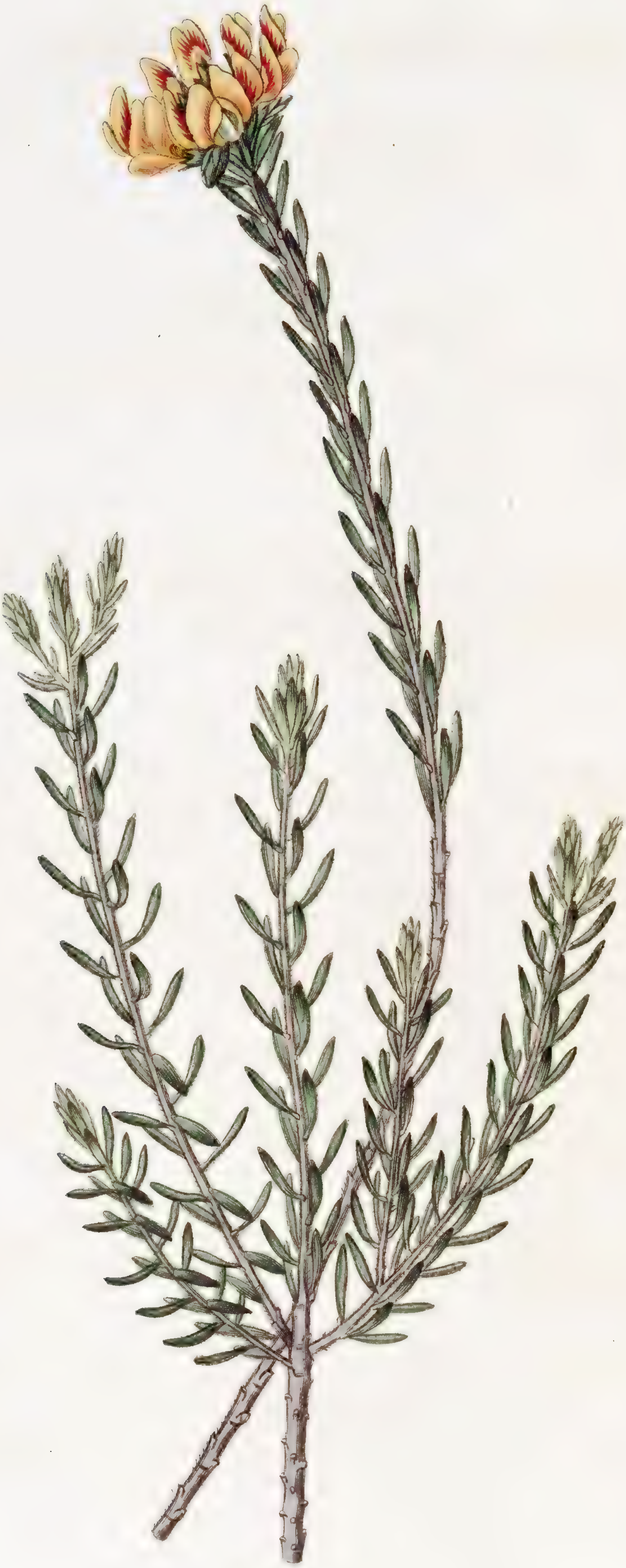
* See fol. 1165.

In this country it can only be cultivated in the stove, where it forms a bush of a few feet in height, and where its hooks are not produced; they appear only in its native woods, where it is more vigorous, and where alone it has occasion for them. It strikes freely from cuttings.

For the opportunity of figuring it we are indebted to her Grace the Duchess of Buccleugh, from one of whose drawings the accompanying Plate has been engraved: it represents this plant in all its glory, as when it flowered at Dalkeith for six weeks in succession, in December 1832, producing, as we learn from Dr. Graham, in the course of that time not fewer than one hundred splendid clusters.

J. L.

1632.



Ridgway 169 Piccadilly Dec. 1. [illegible]

PULTENÆA* subumbelláta.

Subumbellate Pultenæa.

DECANDRIA *MONOGYNIA.*

Nat. ord. LEGUMINOSÆ *Juss.* (*Introduction to the natural system of Botany, p.* 86.)

PULTENÆA.—Suprà, vol. 5. *fol.* 378.

P. *subumbellata;* ramis cinereis pilosis, foliis linearibus obtusiusculis utrinque glabris, capitulis terminalibus multifloris, bracteis liberis setaceis plumosis calycibus muticis hirsutis multò brevioribus.

P. subumbellata. *Hooker in bot. mag. t.* 3254.

At first sight this would hardly be considered the same as the plant figured in the Botanical Magazine; but upon a careful comparison of the specimen we have from Mr. Lowe and Dr. Hooker's description, we have arrived at the conclusion, that what we now publish differs only in its less vigour and health. The principal differences consist in the larger flowers and spreading leaves of P. *subumbellata;* but these characters are in all probability owing to the cause above stated. The bracteæ of this plant are setaceous and remarkably feathered with white hairs; but they are so short as to be easily overlooked.

A hardy greenhouse plant, native of Van Diemen's Land. Our drawing was made in Mr. Lowe's Nursery, in May 1832. J. L.

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[*] See fol. 1584.

1633.

del. Pub by J. Ridgway 169 Piccadilly Dec 1 1833. J. Watts sc.

PASSIFLÓRA* kermesína.

Crimson Passionflower.

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MONADELPHIA *PENTANDRIA.*

Nat. ord. PASSIFLOREÆ *Juss.* (*Introduction to the natural system of Botany, p.* 148.)
PASSIFLORA.—Suprà, vol. 1. *fol.* 13.

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§ Decaloba. *De Candolle, mém. soc. Gen.* 1. *pars* 2. *p.* 435. *Prodr.* 3. 325.

P. *kermesina;* glaberrima, foliis cordatis trilobis denticulatis subtùs vinosis, petiolis biglandulosis, pedunculis solitariis foliis multò longioribus.

P. kermesina. *Link et Otto.*

Caulis *scandens, teres, fruticosus, glaber, atroviridis, gracilis.* Folia *triloba, cordata, supra atroviridia lucida, subtùs vinosa discoloria, lobis basi serrulatis;* petioli *teretes, glandulis geminis minimis stipitatis in medio;* stipulæ *foliaceæ, semicordatæ, apice subcirrhosæ, versus basin aliquandò denticulatæ.* Pedunculi *solitarii, axillares, graciles, foliis multò longiores, involucri loco articulo manifesto.* Calyx *sanguineus, laciniis lineari-oblongis acutis, tubo brevi.* Petala *conformia et concoloria, sed paulò majora, plana, patentissima, demùm reflexa.* Corona *series unica filorum brevium purpureorum patentium; adsunt præterea in medio tubo annulus crassus, cujus margo inferior deflectitur, et ad faucem conus albus membranaceus extus serie unicâ filorum longiorum erectorum appendiculatus.*

We have not at hand the book in which this Passionflower has been published; but we believe it is described and figured in the work of Messrs. Link and Otto upon the new plants of the Berlin Garden. It was from that establishment that it was brought to the Horticultural Society by Mr. Bentham, in the autumn of 1831; and it has been almost ever since in flower.

It is beyond all comparison the most beautiful species in cultivation, except P. racemosa. Its flowers have a richness of colour which art cannot imitate; they are produced in very great abundance at almost all seasons; and in consequence of the length of the slender stalks from which they singly hang, the whole plant has a graceful aspect, which is unrivalled even among Passionflowers.

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* See fol. 1339.

Unfortunately it is propagated with considerable difficulty, no part of the stem striking from cuttings except what is very woody and completely formed; and this, which is always at the bottom of the stem, can scarcely be procured without cutting down the whole plant.

Requires a hot and damp stove.

J. L.

PASSIFLÓRA* gossypiifólia.

Cotton-leaved Passionflower.

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MONADELPHIA *PENTANDRIA.*

Nat. ord. Passifloreæ *Juss.* (*Introduction to the natural system of Botany, p.* 148.)

PASSIFLORA.—Suprà, vol. 1. *fol.* 13.

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§. Dysosmia. *De Candolle, mém. soc. Genev.* 1. *pars* 2. *p.* 436. *Prodr.* 3. 331.

P. *gossypiifolia ;* caule petiolis foliisque utrinque molliter velutinis, foliis trilobis cordatis: lobis ovatis obtusis acuminatisve subdentatis, ovario villoso.

P. hibiscifolia. *De Cand. prodr.* 3. 331. nec Lamarckii.

P. gossypiifolia. *Desv. in Hamilt. prodr. p.* 28. *Link et Otto Abbildungen, p.* 91. *t.* 46.

A native of several of the tropical parts of America. It has been found by Dr. Hamilton in the West Indies, and by Messrs. Deppe and Schiede in Mexico. About Lima, in Peru, it seems to be common: from seeds collected in that quarter by Mr. Cruckshanks, the plant from which our drawing was taken was raised in the Garden of the Horticultural Society, where it flowered in August 1832.

It is not a plant of much interest, unless minutely examined, when the green stalked glands of the involucrum and leafstalks will be found beautiful objects.

A perennial stove plant, multiplied by cuttings.

J. L.

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* See fol. 1339.

1635.

1635

ANTHÚRIUM* grácile.

Slender Anthurium.

TETRANDRIA *MONOGYNIA.*

Nat. ord. Aroideæ *Juss.* *Subtribus* Pothoinæ *Schott.* (*Introduction to the natural system of Botany, p.* 286.)

ANTHURIUM.—*Spatha* abbreviata, reflexa, persistens. *Spadix* subsessilis flosculis tetrandris. *Ovaria* bilocularia, loculis 2-ovulatis, ovulis axi appensis. *Stigma* oblongum. *Baccæ* 2-4-spermæ. *Semina* albuminosa.——*Americanæ, tropicæ, subacaules, erectæ, v. scandentes;* foliis *palmatis, digitatis v. sæpiùs* foliolo *unico perfecto, reliquis abortivis* (petiolis *apice tumidis*); vaginis *stipularibus* (*in speciminibus floriferis !*) *petiolo alternantibus persistentibus.* Schott et Endlicher meletemata botanica, p. 22.

A. *gracile;* subacaule, foliis cuneato-lanceolatis acuminatis basi valdè angustatis: venis marginalibus obsoletis, petiolis gracilibus, pedunculis filiformibus, spadicibus gracillimis paucifloris.

Pothos gracilis. *Rudge plant. Guian. rar. p.* 23. *t.* 32. *Römer et Schultes syst. veg.* 3. 432.

Messrs. Schott and Endlicher, in a very elaborate memoir, have lately, and we think rightly, separated the American plants usually referred to Pothos from that genus, and have given them the new name of Anthurium. The type of the genus Pothos, in the acceptation of these learned Botanists, is the *Pothos scandens* figured at fol. 1337 of this work.

This species is a native of the tropical parts of America: the plant from which our drawing was taken was communicated by our liberal correspondent Mr. Richard Harrison, who obtained it from Demerara, through the assistance of Thomas Moss, Esq. of Liverpool. It has little beauty when in flower; but its spikes of crimson berries give it rather a pretty appearance when in fruit.

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* From ἄνθος, a flower, and οὐρὰ, a tail; in allusion to the form of the spadix.

It agrees precisely with specimens from Guiana, for which we are indebted to Dr. Hooker, and which we refer to the Pothos gracilis of Rudge. It is also closely related to Pothos Harrisii, from which it chiefly differs in its narrower and more tapering leaves, and in its slender peduncles bearing spadices, which may be called few-flowered if compared with the long, crowded inflorescence of Pothos Harrisii.

Requires the heat of a stove, and a treatment similar to that of epiphytal Orchideous plants.

J. L.

Miss Drake. del. Pub by J. Ridgway 169 Piccadilly Dec 1 1833. [illegible]

ASTER* puníceus; *var.* demissus.

Dwarf Blue Aster.

SYNGENESIA *SUPERFLUA.*

Nat. ord. Compositæ *Juss.* (*Introduction to the natural system of Botany*, p. 197.)

ASTER.—Suprà, vol. 3. fol. 183.

A. *puniceus;* foliis oblongo-lanceolatis amplectentibus acuminatis medio adpresso-serratis supra scabris, caule hispido patulo-racemoso, ramis inferis racemosis superis simplicibus, periclinii laxi foliolis lineari-subulatis æqualibus. *Nees gen. et sp. Asterearum, p.* 67.
A. amœnus. *Lamarck.*
A. puniceus. *Linn. aliorumque.*
A. hispidus. *Lamarck.*
Var. *demissus*, caule sesquipedali corymboso, floribus cœruleo-violaceis.
A. puniceus γ demissus. *Lindl. in D. C. prodr. vol. v. ined.*

Aster puniceus is one of the commonest and most generally known of all the North American species. Its tall hispid racemose stem will at once distinguish it from others that are generally met with. Accordingly we find, that while endless errors are committed in the determination of the species of this most difficult of all genera, the A. *puniceus* has, with few exceptions, been kept in books unmixed with its neighbours.

The variety we now represent has long been known in English gardens, but we have not met with it in any foreign collection; for which reason we hesitate to consider it the same as Nees von Esenbeck's variety β. Its habit is so peculiar, that we formerly took it for a distinct species; and it was distributed from the Garden of the

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* See fol. 1487.

Horticultural Society under the name of *Aster demissus.* But the absence of all trace of it in a wild state, and its close approach to A. *puniceus* in most respects, except stature and the colour of its flowers, has induced us finally to rank it as a simple variety.

It is a very compact herbaceous plant, not exceeding a foot and a half or two feet in height, with very pale-green leaves, and a corymbose stem closely covered with masses of bluish flowers, which appear in August, long before those of the true A. *puniceus.* It is among the handsomest of the genus.

Our drawing was made in the Garden of the Horticultural Society, where it had been received from the Liverpool Garden, under the name of Aster, No. 7.

J. L.

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1637

GESNÉRA* Suttóni.

Captain Sutton's Gesnera.

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DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. Gesnereæ *Richard.* (*Introduction to the natural system of Botany, p.* 227.)

GESNERA.—Suprà, vol. 4. *fol.* 329.

G. *Suttoni;* herbacea, foliis cordato-ovatis crenatis tomentosis, caule racemoso, pedunculis axillaribus solitariis, corollæ labio superiori oblongo undulato, inferiori parvo revoluto.

G. Suttoni. *Booth in litt.*

For the communication of the drawing and following account of this new plant we are obliged to Mr. William Beattie Booth, Gardener to Sir Charles Lemon, of Carclew.

"We owe the introduction of this fine plant to Captain Sutton, of His Majesty's Packet establishment at Falmouth, who informs us that he found it growing in a wood, on a sloping hill, near the Bay of Bomviaga, Rio de Janeiro, at an elevation of between 30 and 40 feet above the level of the sea, and not exceeding forty yards from the water. Its beautiful flowers attracted his attention, and induced him to dig up the plant and bring it home. On his arrival in England, in March 1833, he presented the choice collection of Orchideous and other interesting plants he had formed, to Sir Charles Lemon, Bart. M.P., and George Crocker Fox, Esq., Grove Hill, Falmouth, in whose Garden the present plant flowered in July, under the judicious management of Mr. Friend, who favoured us with the specimen from which the accompanying figure and description were taken. It has some resemblance to *Gesnera bulbosa;* but is evidently distinct from that species, differing from it in foliage, as well as in the flowers, which are larger, and have a broader outstretched upper lip.

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* See fol. 1158.

" *Root* tuberous. *Stem* herbaceous, round, tomentose, growing to the height of about 2 feet. *Leaves* of a rich green colour, produced on footstalks about $\frac{1}{2}$ an inch in length, opposite, ovate, cordate at the base, crenated, and densely covered on both sides with hoary pubescence. *Flowers* axillary, rising singly on a round hoary peduncle, about the length of the tube of the corolla. *Calyx* of 5 equal-sized acuminate segments. *Corolla* of a fine scarlet colour outside, very pubescent, tubular, and slightly ventricose, swelling at the base, inside smooth, yellowish red. *Upper lip* large and spreading, the edges undulated; *lower lip* very short, and revolute. *Filaments* filiform, hairy, protruding to about the length of the upper limb of the corolla; four in number, with the rudiment of a fifth. *Anthers* connected. *Style* large, round, densely pubescent, the same length as the filaments, of a pale yellow colour, excepting at the base, which is green, with two white fleshy processes, *a*, on the part that is uppermost when the flower is in its proper position. *Stigma* open, swelled at the point, and bifid.

" We have named the species in honour of the gentleman by whom it was introduced. It requires the constant heat of the stove, and flourishes in a strong rich soil. It has not yet been increased; but we have no doubt that cuttings of it will strike root without much difficulty."

J. L.

M. Hart del.

Pub. by J. Ridgway, 169 Piccadilly, June 1, 1834.

S. Watts sc.

AMARYLLIS* kermesína.

Carmine Amaryllis.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Amaryllideæ *R. Br.* (*Introduction to the natural system of Botany, p.* 259.)

AMARYLLIS.—Suprà, vol. 1. *fol.* 23.

A. *kermesina*, foliis linearibus obtusis scapo brevioribus, umbellâ triflorâ, floribus suberectis subæqualibus infundibuliformibus pedicellis parum longioribus.

A beautiful plant, with which we are acquainted only from the accompanying figure and notes, for which we are obliged to Mr. W. B. Booth, Gardener to Sir Charles Lemon, of Carclew.

"Roots of this pretty species of Amaryllis were brought from Brazil, in the early part of 1833, by Lieut. Holland, of the Royal Marines, who presented them to Miss Street, of Penryn, to whom we are indebted for the specimen from which the accompanying figure and description were taken. It appears to rank next to A. *advena, Bot. Reg. t.* 1125. *f.* 1. and A. *intermedia, Bot. Reg. t.* 1148, but is perfectly distinct from either, and indeed from any species with which we are acquainted.

"*Bulb* somewhat larger than a pigeon's egg, with the outer covering of a dark brown colour. *Leaves* two or more in number (our specimen had only two, but we saw some with three), from 8 inches to a foot in length, and about one-fourth of an inch in breadth, linear-lorate, obtuse at the point, slightly glaucous, and of a green bright colour.

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* See fol. 1188.

Scape glaucous, paler than the leaves, a little compressed, and about a foot high. *Flowers* pedicelled, three or four in number; pedicels round and slender, from 2 to 3 inches in length, and surrounded at their base with a pale brown, bivalved, acuminate spathe. *Perianthium* about 2½ inches long, funnel-shaped, slightly campanulate, of a deep carmine colour, marked with darker veins. *Segments* six, oblong-lanceolate, all nearly equal in size, the three outer ones tipped with a small inwardly-barbed mucro. *Stamens* assurgent, rather more than half the length of the perianthium, two of them much shorter than the rest. *Anthers* large, roundish-oblong. *Style* about one-third longer than the stamens, of a pale red colour, thickening gradually towards the stigma, which is 3-lobed, spreading, and recurved. *Ovary* turbinate, 3-celled, many-seeded. *Ovules* distichous, flat?

"We have not observed any disposition in the plant to increase itself by offsets from the principal bulb. The soil in which it thrives very well is a mixture of loam, peat, and sand. It has hitherto been kept in a warm vinery."

J. L.

rake. del. Pub by J. Ridgway 169 Piccadilly Jan. 1.1834. [illegible]

HESPEROSCÓRDUM* lácteum.

Milk-white Hesperoscordum.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Asphodeleæ *Juss.* (*Introduction to the natural system of Botany, p.* 273.)

HESPEROSCORDUM Lindl. in Bot. Reg. sub tab. 1293.—*Perianthium* subcampanulato-rotatum, 6-fidum, cum pedicello articulatum. *Stamina* 6, fertilia, filamentis dilatatis membranaceis æqualibus è fauce exortis, basi subconnatis. *Squamæ* hypogynæ 0. *Ovarium* sessile, 3-loculare, polyspermum, apice triglandulosum; *stylus* teres, cum ovario articulatus; *stigma* simplex. *Capsula* trilocularis, trivalvis, polysperma, valvis medio septiferis. *Semina* nigra, angulata, subcrustacea.——Herba (*Boreali-Americana*) cormis *induviatis.* Flores *umbellati.*

H. *lacteum*; floribus exterioribus ascendentibus pedicellis duplò brevioribus.

Cormi *nucis avellanæ majoris, v. Croci magnitudine, induviis nitidis argutè reticulatis vestiti.* Folia *debilia, linearia, canaliculata, scapi longitudine.* Scapus *sesquipedalis, debilis, teres.* Umbella *multiflora; involucri polyphylli foliolis linearibus subulatis.* Flores *albi.* Sepala *ovata, acuta, subcarinata,* petala *emarginata, omnia lineâ brevi viridi in axi.*

Found by Mr. Douglas in California, whence its roots were sent to the Horticultural Society in 1833. Our drawing was made in July last, at which time it flowered for the first time in Europe.

It proves a hardy perennial plant, of but little beauty, with very much the aspect of some white-flowered Allium. It seems to grow freely in any sort of soil, and will probably thrive if left to its fate in the open border all winter. Being at present rare, this experiment has not been tried; but the roots have been taken up, and treated as Tulips, in order that no risk may be run of losing them.

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* Literally "onion of the west;" so named from its resemblance to an Allium, and its origin in the western world.

It is very like the original species, from which it differs in having smaller flowers; and especially in the umbel being far less compact, with the stalks rather more than twice as long as the flowers themselves. In H. *hyacinthinum*, on the contrary, which is reported to be sky-blue, the umbel is very crowded, and the stalks of the outer flowers are curved downwards, and not longer than the flowers themselves. The latter may be defined thus:

H. *hyacinthinum;* floribus exterioribus decurvis pedicellorum longitudine.

J. L.

1640.

[illegible] del. Pub. by J. Ridgway 169 Piccadilly Jan. 1 1834. J. Watts sc.

1640

LIMNÓCHARIS* Humbóldti.

Humboldt's Limnocharis.

POLYANDRIA *POLYGYNIA.*

Nat. ord. BUTOMEÆ *Richard.* (*Introduction to the natural system of Botany, p.* 253.)

LIMNOCHARIS Rich.—*Flores* tripetaloidei. *Staminum* series exterior sterilis.

L. *Humboldti;* foliis subrotundo-ovatis cordatis natantibus costâ inflatâ, pedunculis unifloris articulatis teretibus.

L. Humboldti. *Richard in mem. mus.* 1. 369. *t.* 19. *Humb. et Kunth. n. g. et sp. pl.* 1. 248. *Hooker in bot. mag.* 3248.

Stratiotes nymphæoides. *Willd. sp. pl.* 4. 821.

New aquatic stove-plants are almost as uncommon as new hardy evergreens; and if they are less valued than the latter, it is only because their beauty must of necessity be confined to the few whose wealth enables them to enjoy the pleasure of extensive hothouses. Generally plants of this description are very beautiful, either in their flowers or their foliage, or remarkable for the singular manner in which nature has enabled them to pass their lives amidst the water. Unless provided with floating apparatus, the small quantity of air contained in their leaves would be insufficient to support them on the surface of the water; and they would sink and drown like animals themselves. But to prevent this occurrence we always find some curious and beautiful contrivance, such as a distension of the leaf-stalk, till it assumes a swollen and gouty aspect; or the construction of myriads of air-chambers in the solid stem itself; or the roots distended into vegetable swimming-bladders; or, as is the case with the species now before us, some special alteration of other parts. In this plant the midrib of the leaf is so enlarged and filled with air, as to render it impossible for the leaf to sink, although loaded with thrice the weight it has to carry; not, however, all the midrib, but only the under-side of it, by which means any upsetting of the leaf, or application of the breathing side (which is the upper) to the surface of the water, by which it would be smothered, is effectually prevented.

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* The name of one of the heroes in the Battle of the Frogs and Mice; literally "Lake-lover."

> "The strong Limnocharis——
> With heaving arms a massive fragment caught,
> And fiercely flung where Troglodytes fought."

The plant itself was originally found by Humboldt in marshes to the west of Caraccas; but it seems common over all the east side of South America. We possess specimens collected in British Guiana by Mr. Parker, for which we are indebted to Dr. Hooker; and the seeds, from which the plants in the Gardens were raised, were sent to the Botanic Garden, Liverpool, from Buenos Ayres.

The flowers are very fugitive, opening in the morning, and withering up in the course of the day. The petals are extremely transparent and delicate; but the chief beauty of the species resides in the rich purple fringe of barren stamens which surrounds the fertile ones. It flowers all the year round in a tank in the stove.

Our drawing was made in Mr. Lowe's Nursery in May 1833.

J. L.

PANCRÁTIUM* pedále.

Long-flowered Pancratium.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDEÆ *R. Br.* (*Introduction to the natural system of Botany, p.* 259.)

PANCRATIUM.—Suprà, vol. 3. *fol.* 221.

P. *pedale;* foliis lato-lanceolatis canaliculatis coriaceis acutis, umbellâ sessili multiflorâ, perianthii tubo longissimo: laciniis lanceolato-linearibus canaliculatis undulatis, coronâ brevi obconicâ plicatâ inter stamina bidentatâ.

Hymenocallis pedalis. *Herbert append. bot. mag. p.* 44.
P. pedale. *Römer et Schultes, vol.* 7. *p.* 916.

One of the most beautiful of the Amaryllis tribe, excelling them all in the extraordinary length of the flowers, which measure a foot from the base of the tube to the tip of the segments. The latter are very narrow and wavy: in our drawing they are represented all turned one way; but we suspect that this position is unnatural, and caused by the specimen having become a little flaccid when the figure was taken.

Communicated, in April 1833, by Richard Harrison, Esq. from his hothouse at Aighburgh. The bulb was sent by Mr. Barnard from near Truxillo. J. L.

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[*] An old name, signifying "all-powerful." It seems to have been originally applied to the squill, on account of its medicinal effects. Why it was transferred to the genus that now bears the name is not apparent.

[illegible] rake. del. Pub. by J. Ridgway [illegible] Piccadilly Jan. 1. 1834 [illegible] sc.

LUPÍNUS* albifrons.

White-leaved Lupine.

◆

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ *Juss.* (*Introduction to the natural system of Botany, p.* 86.)

LUPINUS.—Suprà, vol. 13. *fol.* 1096.

L. *albifrons;* fruticosus, caulibus decumbentibus foliisque argenteo-sericeis, foliolis obovato-oblongis basi angustatis, floribus verticillatis bracteolatis, calycis labio superiore bifido inferiore integro. *Bentham in Hort. trans. vol.* 1. *new series, p.* 410.

Frutex 3-4-*pedalis, undique pube sericeâ albicante obtectus.* Foliola 7-9, *obovata, acuta;* stipulæ *lato-subulatæ, sericeæ.* Racemi *terminales, pedem et ultrà longi, verticillati.* Bracteæ *breves, deciduæ.* Calyx *bipartitus, bracteolatus; labio inferiore angustissimo acuto, superiore bidentato basi gibboso.* Flores *cæruleo-violacei; carinâ leviter ciliatâ.*

A fine species of shrubby Lupin, raised in the garden of the Horticultural Society from seeds sent from California by Mr. David Douglas. It has been lately described in the Transactions of the Horticultural Society by Mr. Bentham, with the following account:—

"Very near L. ornatus, from which it differs in its shrubby habit, short leaves, long and slender racemes, and rather smaller deep-blue flowers: although not so handsome as L. ornatus, it is well deserving of cultivation. The seeds are of a light chestnut colour, marbled with brown.

"It is perhaps not hardy enough to bear the rigour of our winters without protection; but it seems to thrive in a glass pit, and would probably succeed in the front of a south wall, covered from wet in winter. It does not seed freely, nor does it strike readily from cuttings."

J. L.

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* See fol. 1198.

1043

1643

HELLÉBORUS* odórus.

Sweet Hellebore.

◆

POLYANDRIA *POLYGYNIA.*

Nat. ord. Ranunculaceæ *Juss.* (*Introduction to the natural system of Botany, p.* 6.)

HELLEBORUS L.—*Calyx* persistens, 5-sepalus, sepalis subrotundis, obtusis, magnis, sæpè viridibus. *Petala* 8-10, brevissima, tubulata, infernè angustiora, nectarifera. *Stamina* 30-60. *Ovaria* 3-10. *Stigmata* terminalia, orbiculata. *Capsulæ* coriaceæ. *Semina* duplici serie disposita, elliptica, umbilicata.——Herbæ *perennes, duræ, coriaceæ, glabræ, aut vix sub foliis pubescentes.* Folia *radicalia, petiolata, palmatim pedatimve secta, segmentis oblongis dentatis; caulina sæpè nulla, formâ varia.* Caules *nunc ramosi, multiflori, foliosi, nunc subramosi bracteas sub ramis gerentes, pauciflori, nunc aphylli 1-flori.* De Cand. syst. veg. 1. 315.

H. *odorus;* acaulis, foliis radicalibus rugosissimis lucidis pedatis subtùs pubescentibus: segmentis oblongo-lanceolatis argutè serratis basi integris, caule bifido, sepalis ovato-subrotundis virescentibus.

H. odorus. *Waldst. et Kitaib. in Willd. enum.* 592. *De Cand. syst.* 1. 318. *Prodr.* 1. 47.

Acaulis. Folia *perennantia, erecta, petiolo pedali, sesquipedem lata, nitida, rugosissima, subtùs venis valdè prominentibus reticulata, pedata, segmentis oblongo-lanceolatis inæqualiter serratis basi integerrimis; inodora.* Caulis *foliorum longitudine, erectus, bifidus, pubescens, foliis palmatis apice tantum serrulatis, petiolis latis membranaceis vaginantibus.* Flores *magni, virides, odore debili gratissimo uvarum moschatarum vulgò de Frontignan dictarum.* Petala *cuneata, cucullata, atroviridia, margine exteriore inflexo.*

H. viridi *diversissimus, foliis latis rugosissimis subtùs pubescentibus et altè reticulatis;* purpurascente *foliis majoribus non incisis, pubescentiâ, et petalis brevioribus;* atrorubenti *propior accedit, sed petalis obtusis nec acutis, sepalorum formâ et colore, carpellorum figurâ, necnon pubescentiâ foliorum facile distinguendus.*

A very desirable addition to the scanty store of winter-blowing flowers, lately introduced from Hungary by the

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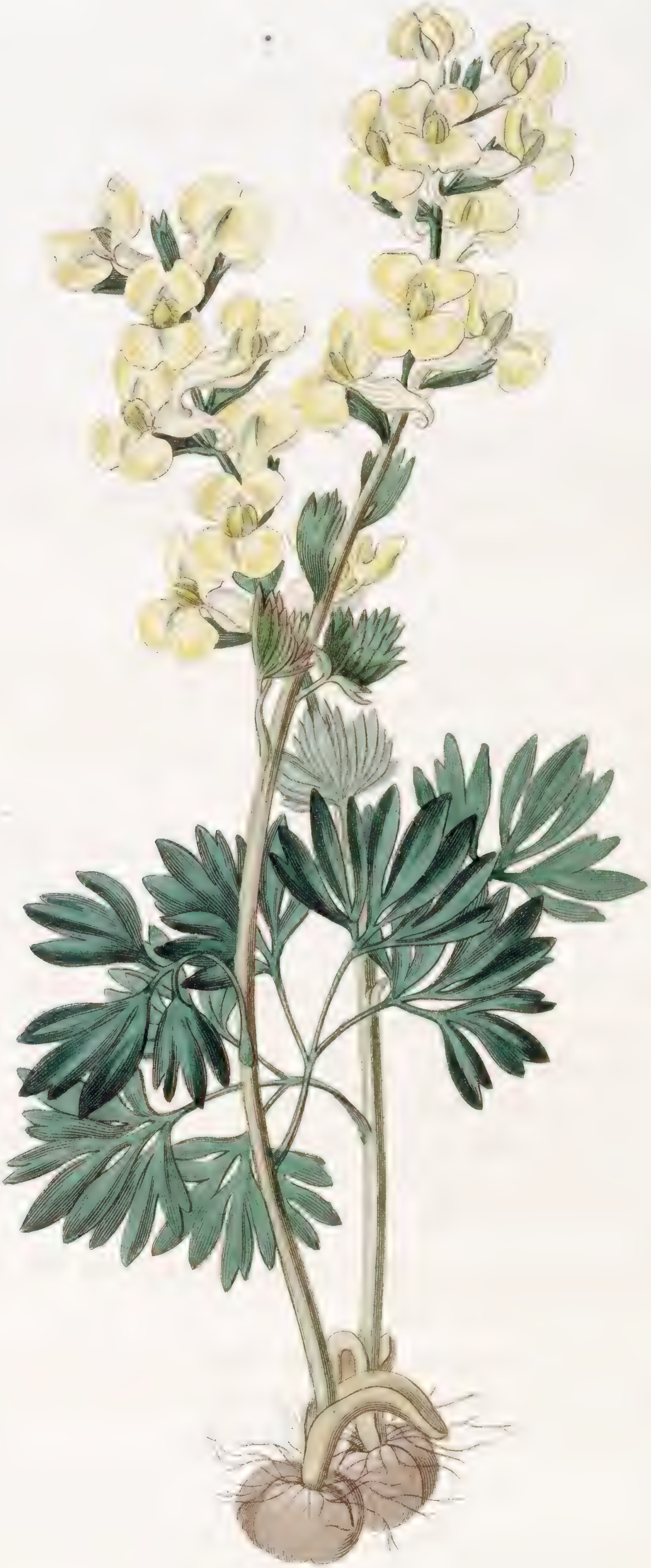
* The black Hellebore of the ancient Greeks, with which it is said that wells were sometimes poisoned, and which had so great a reputation as a dangerous medicament, was undoubtedly a species of the present genus.

Horticultural Society. It is nearly related to H. *viridis*, which is deservedly excluded from Gardens, notwithstanding its flowering at Christmas, because of the rank elder-like smell of all its parts: this species, on the contrary, has not only no such odour, but its flowers have a faint and most agreeable fragrance, which we can compare to nothing so well as to newly-gathered Frontignan grapes, or to wine of Lunel.

The broad glossy leaves form a rich green tuft, amongst which the modest nodding flowers are almost hidden.

It thrives in a peat border among bushes, where it is probably quite hardy: being at present extremely rare, it will, however, be better to protect it in winter with litter.

J. L.



Miss Drake del.   Pub by J. Ridgway 169 Piccadilly Jan. 1 1834   J. Watt.

1644

CORÝDALIS* bracteáta.

Large-bracted Corydalis.

DIADELPHIA *HEXANDRIA.*

Nat. ord. Fumariaceæ *De Cand.* (*Introduction to the natural system of Botany, p.* 18.)

CORYDALIS De Cand.—*Petala* 4, unicum basi calcaratum. *Siliqua* bivalvis compressa polysperma.——Herbæ *glabræ, sæpè glaucæ, perennes v. annuæ.* De Cand. prodr. 1. 126.

C. *bracteata ;* caule simplici diphyllo basi unisquamato : squamâ recurvatâ, foliis biternatim sectis segmentis bi- v. tripartitis, laciniis oblongis brevissimè mucronulatis subintegris, bracteis cuneatis flabellatim incisis pedicellos superantibus, calcare ascendente recto obtusissimo pedicellum superante. *Ledebour fl. alt. vol.* 3. *p.* 243.

Fumaria bracteata. *Willd. sp. pl.* 3. 858.

C. bracteata. *Pers. synops.* 2. *p.* 269. *De Cand. prodr.* 1. 128. *Bot. mag.* 3242.

A pretty little hardy herbaceous plant, found abundantly in damp shady places among the Altai mountains, where it appears with the earliest of the flowers of spring. In this country it succeeds well in a peaty soil, if it is sheltered from wind, and protected from the sun's direct rays. It is, however, as yet extremely rare, for it yields no seed, and increases very slowly by its roots.

Our drawing was made in the Garden of the Horticultural Society in March last.

The specific name is derived from the unusual size of the bracteæ; a circumstance more obvious in the wild than in the cultivated plant. J. L.

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* This word is said to be derived from the Greek word κορυδαλλὶς, a lark; in allusion to the lengthened base of one of the petals, which has been compared to the spur of a lark.

1045.

[illegible]

FRANCÓA* appendiculáta.

Sowthistle-leaved Francoa.

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OCTANDRIA *MONOGYNIA.*

Nat. ord. FRANCOACEÆ *Ad. de Jussieu in ann. sc. nat. vol.* 25. *p.* 9. (Galacineæ *Don. Introduction to the natural system of Botany, p.* 161.)

FRANCOA Cav.—*Calyx* 4-partitus, liber. *Petala* totidem. *Stamina* 8, hypogyno-perigyna, alterna breviora, glandulis totidem interjectis. *Ovarium* 4-loculare, polyspermum, stigmatibus 4 sessilibus. *Capsula* membranacea, septicido-4-valvis, polysperma. *Semina* integumento duplici; exteriore laxo corrugato.——Herbæ *subacaules* (Americanæ). Folia *radicalia, pinnata, lyrata.* Flores *longè racemosi.*

F. *appendiculata;* racemis subsimplicibus calycibusque tomentosis.

F. sonchifolia. "*Cav. ic. v.* 6. *p.* 77. *in obs.*" *Spreng. syst.* 2. 262. *Ad. Juss. in ann. sc. v.* 3. *p.* 192. *t.* 12. *Hooker and Arnott Bot. Misc. v.* 3. *p.* 249.

F. appendiculata. "*Cav. ic. v.* 6. *t.* 596." *Spreng. syst. l. c. Graham in bot. mag. t.* 3178. *Don in brit. fl.-garden, t.* 151. *Hooker and Arnott l. c.*

Llaupanke amplissimo sonchi folio. *Feuillée chil. v.* 2. *t.* 31.

Capsula *membranacea, oblonga, basi calyce persistente vestita,* 4-*locularis,* 4-*valvis, septicido-dehiscens, axi nullo separabili.* Semina *numerosissima, minutissima, griseo-testacea, oblonga, integumento duplici;* exteriore *laxo, corrugato, facile separabili, reticulato;* interiore *nucleo arcte adhærenti, striato, apice chalaza castanea insignito.* Embryo *minutus, hilo proximus, in basi albuminis carnosi locatus.*

A pretty herbaceous plant, found abundantly in various parts of Chile, by the sides of hills and in rather moist situations. In this country it grows freely in the open air in the summer, but requires protection in the winter: it, however, thrives better if constantly kept in a greenhouse, especially if it be planted in the open soil, where it can be freely exposed to light and air, without which the

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[*] So called by Cavanilles after a Spanish Botanist of the sixteenth century, named Francisco Franco.

beautiful spots of its petals are scarcely developed. It is propagated by seeds and offsets.

We have no hesitation in uniting the two supposed species F. *sonchifolia* and F. *appendiculata;* for, after an attentive examination of specimens, we can discover no distinction of importance; indeed, even the white-flowered kind, F. *ramosa,* which is now common in collections, would have but slender claims to being preserved if it were not for the absence of pubescence from its inflorescence.

The genus Francoa is botanically interesting in a very high degree, in consequence of the many conflicting opinions that have been held regarding its position in a Natural System. M. Adrien de Jussieu would have it near Crassulaceæ; Dr. Hooker suggests its really belonging to a section of that order; Mr. Don combines it with Galax into a distinct natural order called Galacineæ, which he places near Saxifrageæ; M. De Candolle rejects these opinions, and stations it in the vicinity of Rosaceæ. We have, without examination, adopted in the *Nixus Plantarum* the first of these views; but we are bound to admit, now that we have carefully considered all the points of the structure of Francoa, that we have great doubt regarding the soundness of the opinion: it is true, that looking only to certain parts of its structure, its resemblance to Crassulaceæ would seem to be of a very striking nature, especially the separation of its carpella when ripe, and their consequent septicidal mode of dehiscence; but if *Tetilla* really is allied to Francoa, as M. Adrien de Jussieu considers, this character, as usual, proves of no value; and there are some circumstances at variance with the approximation, which deserve to be well considered. For example, the foliage has no relation to that of any known Crassulaceæ; the inflorescence is equally at variance with that order; neither do the carpella taper gradually into stigmata; and the embryo of Francoa is exceedingly minute at the base of the albumen, instead of occupying the principal part of the interior of the seed, to the almost total exclusion of albumen. On this latter account we would suggest its more immediate affinity to be with Dionæa; and that it is one of the genera which will, with others hereafter to be discovered, complete the ordination of the *albuminous cohort* of polypetalous dicotyledons. (See *Nixus Plantarum.*)

J. L.

1646.

1646

CALÁNTHE* densiflóra.

Clustered Calanthe.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 262.)

CALANTHE.—Suprà, vol. 9. *fol.* 720.

C. *densiflora ;* scapo foliis multò breviore, squamis laxis ventricosis, racemis densis multifloris corymbosis, labelli cum columnâ parùm connati lobo medio cuneato bilobo, disco bilamellato, calcare longo recto pendulo apice clavato.

C. densiflora. *Lindl. gen. et sp. Orch. p.* 250.

Rhizoma *subterraneum, brevissimum, pullulationibus junioribus duris rigidis cornutis sanguineo pallido punctatis.* Folia *oblongo-lanceolata, plicata.* Scapus *semipedalis et ultrà, squamis* 2-3 *ventricosis sanguineo-punctatis laxe vaginatus.* Flores *pallidè lutei, in corymbum densum multiflorum congesti.* Sepala *et* petala *conniventia, æqualia.* Labellum *cum columnâ parùm connatum, trilobum ; lobis lateralibus ascendentibus rotundatis, intermedio cuneato rotundato bilobo basi lamellis* 2 *cornutis brevibus ornato ;* calcar *curvum, pendulum, apice clavatum.*

A native of the mountains of Sylhet, whence it was obtained by Dr. Wallich. The specimen from which our drawing was taken was communicated by W. W. Salmon, Esq., in October last, and was said to have been procured from Ava. When we first saw it, the flowers were drooping and injured, and we supposed it might prove a new species ; but a fine flower-spike subsequently given us by Messrs. Loddiges, has satisfied us that it is *Calanthe densiflora,* of which we had previously examined nothing better than a few badly-dried flowers.

A terrestrial species, growing very freely in loam and decayed vegetable matter in a damp stove ; propagated by division of the crown of the root.

J. L.

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* Formed from two Greek words, signifying literally " Pretty-blossom."

1047.

Miss Drake del. Pub by J. Ridgway 169 Piccadilly Feb. 1. 1834. J. Watts sc.

1647

GASTROLÓBIUM* retúsum.

Blunt-leaved Gastrolobium.

DECANDRIA *MONOGYNIA.*

Nat. ord. LEGUMINOSÆ *Juss.* (*Introduction to the natural system of Botany, p.* 86.)

GASTROLOBIUM.—Suprà, vol. 5. *fol.* 411.

G. *retusum;* foliis cuneato-oblongis retusis subtùs subsericeis reticulatis: mucronulo deciduo, capitulis paucifloris.

Caulis *erectus, sericeus,* ramis *compressis.* Folia *verticillata, uncia breviora, cinereo-viridia, cuneata, apice retusa, nullo modo biloba, nunc acutiuscula, mucronulo uncato prominente deciduo; subtùs reticulata, subsericea, demùm calva;* stipulæ *setaceæ, plumosæ, recurvæ, petiolis longiores.* Capitula *terminalia et axillaria.* Calyces *villosissimi.* Corollæ *aurantiacæ, purpureo striolatæ, carinâ concolore.*

A smaller plant than the old but rare species G. *bilobum,* already figured at fol. 411 of this work. Its flowers are of the same rich orange yellow, but in smaller heads; and their keel is not purple, but of the same colour as the other petals.

A native of the south coast of New Holland, whence it was received by Mr. Knight, of the King's Road, in whose Nursery our figure was made in May last.

It is a pretty greenhouse plant, easily propagated by cuttings.

Fig. 1. is a magnified representation of the calyx; 2. of the ovary; and 3. of the stamens with the ovary in their middle.

J. L.

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* From γαστὴρ, the abdomen, and λοβὸς, a pod: it might be Englished "Bladder-pod," the pods having an inflated appearance.

1413

HELICÓNIA* pulverulénta.

Powdered Heliconia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. MUSACEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 269.)

HELICONIA Linn.—*Calycis* limbi laciniæ tres exteriores inter se coalescentes, subæquales, lineari-lanceolatæ, acutæ; tres interiores, quarum 2 exterioribus subconformes, approximatæ, unâ infimâ multò breviore acuminatâ. *Stamina* 5, longitudine calycis, et basi laciniarum inserta. *Stylus* simplex; stigma depressum, à summo stylo vix distinctum, 6-lobatum, lobis brevissimis. *Capsula* subdrupacea, apice umbilicata, in coccos tres secedens; coccis monospermis subosseis indehiscentibus; *semine* erecto.——Herbæ *caulescentes, aut acaules,* foliis *petiolatis basi vaginantibus;* spathis *pluribus superpositis distichis;* floribus *in axillâ spatharum insertis.* Ach. Richard, Act. acad. nat. cur. xv. suppl. p. 13.

H. *pulverulenta;* foliis basi obtusis cordatisve apice acutis subtùs pulverulentis, spathis ternis paucifloris folio bracteali brevioribus.

Caulis *glaucedine paucâ vestitus.* Folia *sesquipedalia v. majora,* 8 *uncias lata, suprà lætè viridia sanguineo angustissimè marginata, subtùs glaucedine copiosissimâ pulverulentâ facile separabili tecta; ultimum semipedale, acuminatum, petiolo glauco basi vaginante, spathis duplò longius.* Spathæ 3, *distichæ, convolutæ, acuminatæ, coccineæ, ex apice vaginæ folii ultimi erumpentes.* Flores *virides;* filamenta *flava;* antheræ *cinereæ.*

A beautiful stove plant, for which we are obliged to Sir Abraham Hume, Bart., in whose hothouse at Wormleybury it flowered in July last.

All the Plantain tribe are remarkable either for the beauty, or size, or singularity of their foliage; but this, although inferior to many in the magnitude of its parts, yields to none in beauty. It is impossible to imagine any thing more delicate than the blue bloom which thickly covers the under-side of the leaves, or more brilliant than the vivid scarlet of the flower-leaves or spathes, among which nestle, as it were, a few bright-green flowers.

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* A genus nearly related to that which Botanists call Musa. The name of the Muses naturally recalls that of Mount Helicon, on which they dwelt.

We are unacquainted with its native country; but as the genus Heliconia is one of those which are absolutely confined to the new world, it is probable that the present species is the spoil of some South American forest, whence it has been brought to contribute to our vegetable riches.

J. L.

1649

[illegible]ke. del. Pub by J. Ridgway 169 Piccadilly Feb. 1. 1834. S. Watts sc.

NIEREMBERGIA* filicaulis.

Slender-stemmed Nierembergia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. SOLANEÆ *Juss.* (*Introduction to the natural system of Botany, p.* 231.)

NIEREMBERGIA Fl. Peruv. — *Calyx* obconicus, laciniis foliosis. *Corolla* hypocrateriformis, tubo filiformi, limbo plano plicato 5-dentato. *Stamina* 5, subæqualia, fauce inserta, stylo parallela et appressa. *Ovarium* disco edentulo insertum; *stigma* lunatum. *Capsula* (bilocularis, bivalvis, dissepimento valvulis parallelo demum libero, *Kunth*).

N. *filicaulis;* caule herbaceo erecto filiformi foliisque lineari-lanceolatis glabris, filamentis glandulosis.

Caulis *pedalis, ascendens, filiformis, glaber.* Folia *lineari-lanceolata, acuta v. obtusa, glabra.* Pedunculi *oppositifolii, glabri, capillares.* Calyx *glaber.* Corollæ *tubus glandulosus, limbus lilacinus centro luteo.* Stamina *quasi monadelpha, filamentis glandulosis.*

This new species was communicated to us in flower, by Mr. Tate, in May last; we presume it is a native of Mexico. It is a pretty greenhouse perennial, easily multiplied by cuttings, and requiring but a moderate degree of protection in winter, provided it is kept in an airy place.

It differs from N. *gracilis,* not only in the colour of its flowers, but also in being entirely destitute of the down found on all parts of that species; the tube of its corolla is also shorter, and its stamens covered with minute glandular hairs.

Let any one compare this with Petunia violacea, figured at folio 1626, and we think he will hardly adopt the opinion, that the genera Petunia and Nierembergia should be united.

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* John Eusebius Nieremberg, a Spanish Jesuit, to whom this genus has been dedicated, is said to have written a Natural History, in sixteen books, of which nothing is now remembered.

Figures 1. and 2. are different views of the stamens; 3. is the corolla cut open, shewing how the stamens originate in the orifice of the tube; and 4. is a view of the ovary, style, and crescent-shaped stigma.

J. L.

1650.

[illegible] Pub. by J. Ridgway 169 Piccadilly, Dec 1 [illegible] [illegible]

VIBÚRNUM* cotinifólium.

Quince-leaved Wayfaring-Tree.

PENTANDRIA *TRIGYNIA.*

Nat. ord. Caprifoliaceæ *Juss.* (*Introduction to the natural system of Botany, p.* 206.)

VIBURNUM.—Suprà, vol. 5. *fol.* 376.

V. *cotinifolium;* foliis cordato-oblongis rugosis subintegris suprà calvis v. pubescentibus subtùs cymisque cano-tomentosis, corollis infundibuliformibus, fructibus oblongis.
V. polycarpon. *Wall. cat. no.* 455. *De Cand. prodr.* 4. 328.
V. cotinifolium. *Don prodr. fl. nep.* 141. *De Cand. l. c.* 327.
β. foliis minùs cordatis, adultis suprà pubescentibus.

Frutex facie omninò V. Lantanæ, *cujus forsitan mera est varietas, characteribus ex climate potius quam ex differentiis ab origine stabilitis pendentibus. Differt enim* foliis *majoribus magisque cordatis, ex quo fortè explicantur serraturæ minores;* habitu *magis frigoris impatiente,* fructibus *magis oblongis latioribusque, denique* corollis *haud rotatis seu leviter campanulatis sed infundibularibus et majoribus.*

This rare plant is a shrub with so much the appearance of Viburnum Lantana, our English Wayfaring-tree, that unless the flowers were seen, one would feel persuaded it was a mere variety. Its leaves have the same wrinkled gray aspect, its branches the same mode of leafing and budding, and its fruit a very similar form; but the flowers are much larger, more coloured with pink, and neither flat nor slightly bell-shaped, but of a distinct obconical figure. It is a native of the mountains of Kamaon, one of the northern provinces of British India, where it was discovered by the plant-collectors of Dr. Wallich, who sent live specimens of it to England. Mr. Royle informs us that it is common in the Himalayas, at elevations of from 5000 to 7000 feet, in 30° N. lat. The hill people call the plant *Juwa*, and occasionally eat the fruit.

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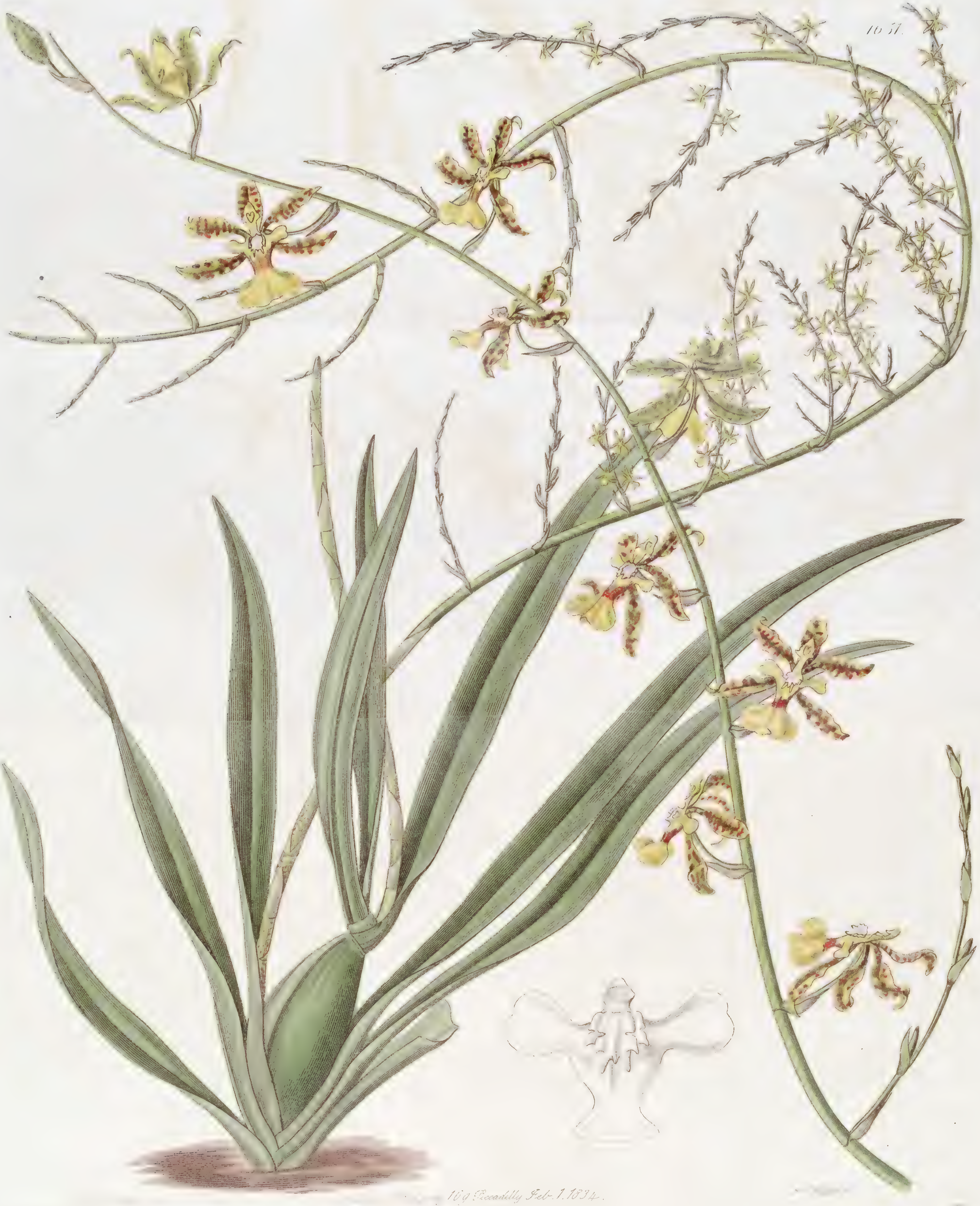
* The Latin word *vieo* signifies to bind with twigs; and hence, they say, comes *Viburnum,* the shoots of which were used as withies.

It proves tolerably hardy, flowering in May; and will doubtless increase by layers, like the Lantana itself.

Among wild specimens under the name of V. *polycarpon*, for which we are indebted to the liberality of the Honourable Court of Directors of the East India Company, are two branches, one in flower, and the other in fruit, which are identical with the plant now figured, and a third, which, although resembling the others in many respects, has the leaves on their upper surface downy, even when the plant is in fruit, and much smaller, scarcely at all cordate at the base, with a few slight toothings at the margin. It appears to be only a variety; but it deserves to be recorded.

J. L.

1651.



169 Piccadilly Feb. 1. 1834.

ONCÍDIUM* altíssimum.

Lofty Oncidium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ *Juss.* (*Introduction to the natural system of Botany*, *p.* 262.)

ONCIDIUM.—Suprà, vol. 13. *fol.* 1050.

O. *altissimum;* pseudobulbis oblongis compressis, foliis ensiformibus rigidis carinatis carnosis scapo (6-pedali) erecto ramoso multò brevioribus, sepalis petalisque labelli longitudine lineari-lanceolatis undulatis, labello cordato utrinque introrsùm arcuato apice dilatato subreniformi emarginato, cristâ enneadactylâ, columnæ alis abbreviatis. *Lindl. gen. et sp. Orch. p.* 200.

α. alis columnæ rotundatis.
Epidendrum altissimum. *Jacq. amer.* 229. *t.* 141.
O. altissimum. *Swartz. fl. ind. occ.* 1481. *Willd. sp. pl.* 4. 112. *Hooker in bot. mag.* 2990.

β. alis columnæ truncatis.
O. Baueri. *Illustrations of the gen. and sp. Orch. t.* 7. Genera.
Epidendrum gigas. *Richard in herb. Vahl.*

One of the most gigantic of Epiphytes. The specimen from which our drawing was made received a medal from the Horticultural Society, and had a flowering stem from six to seven feet high: it was grown in the nursery of the late Mr. Colvill. It is described by Richard as frequently attaining the height of nine feet, *with leaves as long*, in its native woods in Guiana; and we have actually had a specimen from Mr. Harrison of Liverpool, the flower-stem of which exceeded ten feet in length.

The blossoms are beautifully marked with green, yellow, and scarlet, but are not of large size: the appearance they

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* See fol. 1542.

present may be judged of from our diminished figure at the back of the single branch drawn of its natural size.

Many of the Orchideous epiphytes are found to succeed best if tied to short pieces of the branches of trees with rugged bark; none succeed better upon that plan than the different species of Oncidium; and provided so large a plant as this, with its long heavy leaves, can be made fast to a branch, we have no doubt it will also be found to like that kind of treatment. The specimen, however, from which our drawing was taken had been grown in a pot in decayed vegetable mould.

It is a native of most of the tropical parts of America, from the eastern to the western shores.

J. L.

SCÓTTIA* lǽvis.

Smooth-branched Scottia.

◆

DECANDRIA *MONOGYNIA.*

Nat. ord. Leguminosæ *Juss.* (*Introduction to the natural system of Botany*, p. 86.)

SCOTTIA.—Suprà, vol. 15. *fol.* 1233.

S. *lævis;* foliis ovatis basi truncatis inæqualiter denticulatis, ramulis lævibus.

Frutex *facie* S. dentatæ, *sed diversus* foliis *angustioribus crebriùs denticulatis,* ramulis *lævibus nec scaberrimis, denique* floribus *unicoloribus nec coccineo tinctis.*

A third species of the rare genus Scottia was hardly to have been expected so soon after that we published at folio 1266. We owe it to the same rich collection; Mr. Knight having raised it from seeds gathered on the south coast of New Holland by Baxter.

It differs from S. *dentata,* not only in its flowers having no tinge of red, and in its narrower, more finely-toothed leaves, but also in its branches being altogether free from the numerous rough projecting points which are found in both the other species.

A delicate greenhouse plant, requiring a cool shelf in the winter, and abundant ventilation.

J. L.

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[*] See fol. 1233.

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OR

VOLUME XIX. OF THE WHOLE WORK.

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THE END.

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